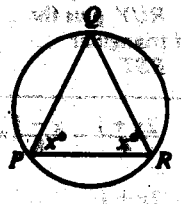
T16 S02

A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

	Column A	Column B
1.	0.0230102301	0.023023

A purchase plan for a stereo receiver requires 20 percent of the total cost as a down payment and monthly payments of $30.

2.	The total cost of the stereo receiver	$450

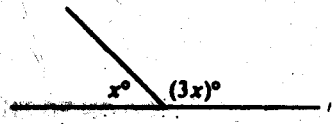


ΔPQR is inscribed in a circle.

3.	PQ	QR

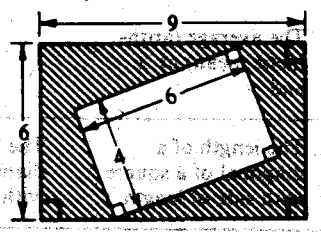
$m + 2 = 8$
$r - 2 = 7$

4.	$4[(m+2)+(r-2)]$	$(m+2)(r-2)$



5.	$4x$	179

	Column A	Column B
6.	$\sqrt{82,531}$	300



7.	The area of the shaded region	30

8.	$\frac{1}{4}+\frac{1}{5}$	$\frac{1}{3}+\frac{1}{7}$

On a 50-question multiple-choice test, 3 points were given for each question answered correctly and 1 point was deducted for each question answered incorrectly. A student who answered all of the questions on the test received a total of 98 points.

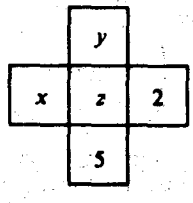
9.	The number of questions on the test that the student answered incorrectly	14

10.	$(0.4)^3$	$(0.2)^6$

GO ON TO THE NEXT PAGE.

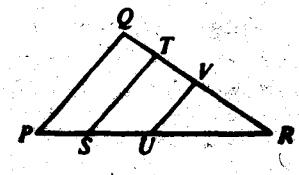
A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

Column A	Column B
$3 \leqq x \leqq 5$ $6 \leqq y \leqq 10$	
11. The average (arithmetic mean) of x and y	5
12. The length of a diagonal of a square with side of length s	The length of a diameter of a circle with radius s



The sum of the three numbers in the horizontal row equals the sum of the three numbers in the vertical column.

13. x y

Column A	Column B
 $PQ \parallel ST \parallel UV$	
14. The area of triangular region RUV plus the area of triangular region RST	The area of triangular region RPQ
$\frac{2x+1}{4} - \frac{x-1}{8} = \frac{x-1}{4} - \frac{2x+1}{8}$	
15. $2x+1$	$x-1$

GO ON TO THE NEXT PAGE.

Directions: Each of the Questions 16-30 has five answer choices. For each of these questions, select the best of the answer choices given.

16. If $\frac{1}{4}$ of a certain number is 2, then $\frac{1}{2}$ of the number is

(A) $\frac{1}{8}$ (B) $\frac{1}{4}$ (C) 1 (D) 4 (E) 8

17. $2.34 - 2\frac{1}{5} =$

(A) 0.09 (B) 0.14 (C) 0.19
(D) 0.29 (E) 0.32

18. If $n - \frac{6}{11} = \frac{5}{11}$, then $n =$

(A) 11 (B) 1 (C) $\frac{1}{11}$
(D) $-\frac{1}{11}$ (E) -11

19. The charge for a telephone call made at 10:00 a.m. from City Y to City X is \$0.50 for the first minute and \$0.34 for each additional minute. At these rates, what is the difference between the total cost of three 5-minute calls and the cost of one 15-minute call?

(A) \$0.00
(B) \$0.16
(C) \$0.32
(D) \$0.48
(E) \$1.00

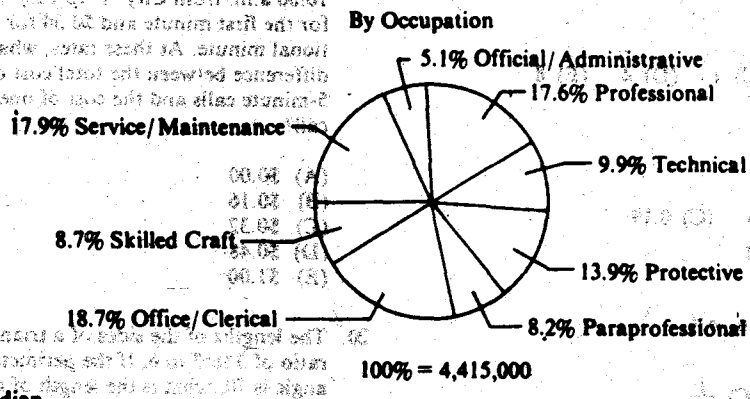
20. The lengths of the sides of a triangle are in the ratio of 3 to 5 to 6. If the perimeter of the triangle is 70, what is the length of the longest side?

(A) 9 (B) 6 (C) 15 (D) 25 (E) 30

GO ON TO THE NEXT PAGE.

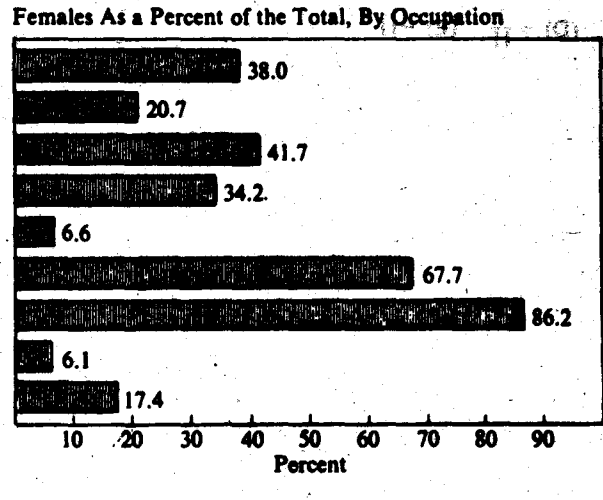
Questions 21-25 refer to the following data.

STATE AND LOCAL GOVERNMENT EMPLOYMENT AND SALARY, BY OCCUPATION AND SEX, 1977



Median Annual Salary

Male	Female	
$12,390	$ 9,093	All Occupations
18,723	14,066	Official/Administrative
15,740	12,650	Professional
12,885	9,445	Technical
13,622	9,827	Protective Service
9,054	7,761	Paraprofessional
9,723	8,456	Office/Clerical
11,657	8,892	Skilled Craft
9,547	7,307	Service/Maintenance



GO ON TO THE NEXT PAGE

21. Approximately what percent of state and local government employees were male?

(A) 38% (B) 52% (C) 58%
(D) 62% (E) 80%

22. State and local governments employed approximately how many more office/clerical employees than skilled craft employees?

(A) 384,000
(B) 441,500
(C) 650,500
(D) 825,600
(E) 1,209,700

23. For state and local government employees, the median annual salary for males was approximately what percent greater than that for females?

(A) 10% (B) 20% (C) 25%
(D) 35% (E) 75%

24. For state and local government employees, approximately what was the difference between the number of females employed as professionals and the number of females employed in service/maintenance occupations?

(A) 75,000
(B) 185,000
(C) 765,000
(D) 1,070,000
(E) 1,840,000

25. Which of the following statements about state and local government employees can be inferred from the data?

I. Fewer than $\frac{1}{3}$ of those in paraprofessional occupations were males.
II. There were more than 5 times the number of females in the technical occupations as in the skilled craft occupations.
III. There were more than 6 times the number of females in the professional occupations as in the official/administrative occupations.

(A) I only
(B) II only
(C) I and II only
(D) II and III only
(E) I, II, and III

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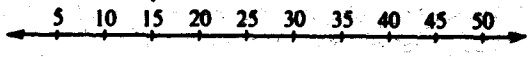
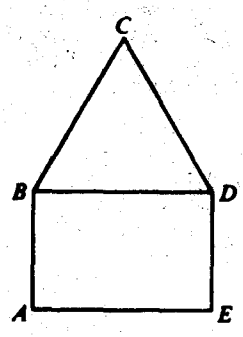


26. On the number line above, what number corresponds to a point that is $\frac{2}{5}$ of the distance from 10 to 40?

(A) 6 (B) 8 (C) 12 (D) 15 (E) 22



27. If polygon $ABCDE$ above has perimeter 26 and equilateral triangle BCD has perimeter 18, what is the area of rectangular region $ABDE$?

(A) 6
(B) 12
(C) 24
(D) 32
(E) 48

28. Which of the following expressions has (have) the same value for $n = 5$ as for $n = \frac{1}{5}$?

I. $n + \frac{1}{n}$

II. $n - \frac{1}{n}$

III. $\frac{n}{\frac{1}{n}}$

(A) I only (B) II only (C) III only
(D) I and II (E) II and III

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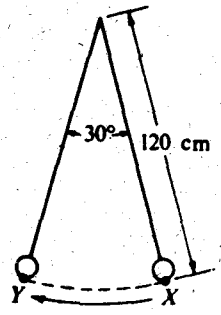


29. The figure above shows the path traced by the end of a pendulum as it moves from point X to point Y. How many centimeters does the end of the pendulum travel along the arc from X to Y?

(A) 4π
(B) 5π
(C) 10π
(D) 20π
(E) 36π

30. If $p = \frac{2}{3}$ and $r = 4$, then $(p\sqrt{3})^r - \left(p + \frac{1}{9}\right) =$

(A) -1 (B) $-\frac{5}{9}$ (C) $\frac{5}{9}$ (D) 1 (E) $\frac{11}{9}$

T16 S5

A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

Column A	Column B
$r = 5$, $s = 2$	
1. $r - 2s + 2$	$\frac{rs}{6}$

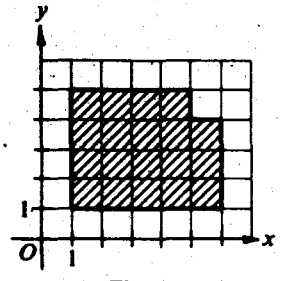


Figure I

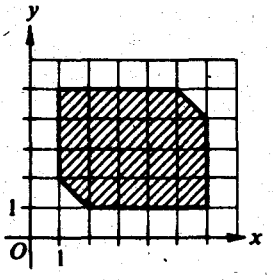


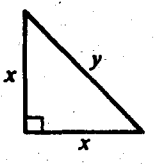
Figure II

2. The area of the shaded region shown in Figure I	The area of the shaded region shown in Figure II

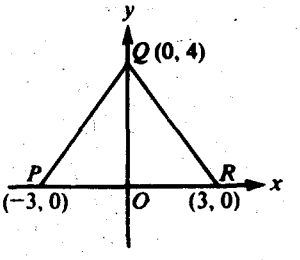
Lila purchased a hat and a scarf for a total of \$40. She received a 25 percent discount on the price of the scarf and a 15 percent discount on the price of the hat.

3. The amount Lila saved on the scarf	The amount Lila saved on the hat
4. (25% of 12) + 8	25% of (12 + 8)

Column A	Column B



5. x^2	y^2
$x \neq 0$	
6. x	$\frac{1}{x}$

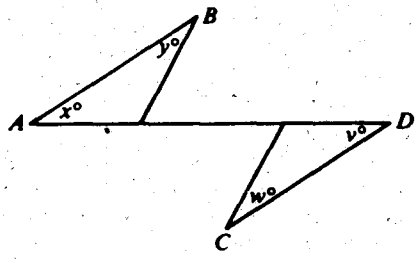


7. The perimeter of triangle PQR	18
x is a positive integer.	
8. $(-1)^{2x}$	$(-1)^{2x+1}$
9. The greatest integer x such that $7x < 49$	The least integer y such that $6y > 30$

GO ON TO THE NEXT PAGE.

A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

	Column A	Column B
10.	The average (arithmetic mean) of $x+5$, $2x+3$, and $1-3x$	The average (arithmetic mean) of 5, 2, 8, 6, and 4



AB is parallel to CD.

11.	$x+y$	$w+v$
12.	$\sqrt{2}+\sqrt{10}$	$\sqrt{6}+\sqrt{6}$

	Column A	Column B
	A rectangular floor with an area of 12 square meters is drawn to scale with 2 centimeters representing 1 meter.	
13.	The area of the scale drawing of the floor	24 square centimeters
	A deck of n cards contains exactly k marked cards. ($k \neq 0$)	
14.	The ratio of the number of unmarked cards in the deck to the number of marked cards in the deck	$\frac{n}{k}-1$
15.	$2^6 \cdot 5^6$	$5(10^5)$

GO ON TO THE NEXT PAGE.

Directions: Each of the Questions 16-30 has five answer choices. For each of these questions, select the best of the answer choices given.

16. If $3x + 5 = 2x + 10$, then $x =$

(A) 1 (B) 2 (C) 3 (D) 5 (E) 15

17. $\frac{1}{3} + \frac{1}{3}$ equals how many twelfths?

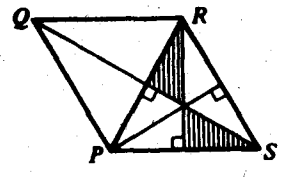
(A) 2 (B) 4 (C) 6 (D) 8 (E) 9

18. Of the 400 cadets in a graduating class, 30 percent were women and, of these, $\frac{1}{5}$ became instructors. If the number of men who became instructors was twice the number of women who became instructors, how many of the men became instructors?

(A) 120
(B) 48
(C) 40
(D) 24
(E) 20

19. Of the following fractions, which has the least value?

(A) $\frac{8}{7}$ (B) $\frac{8}{9}$ (C) $\frac{5}{6}$ (D) $\frac{7}{8}$ (E) $\frac{7}{9}$



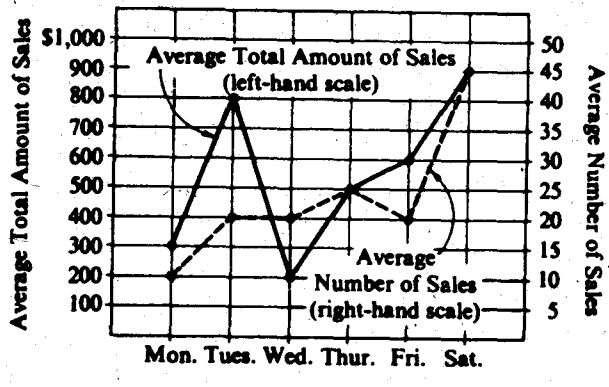
20. If ΔPQR and ΔPRS above are equilateral, what fraction of $PQRS$ is shaded?

(A) $\frac{1}{3}$ (B) $\frac{1}{4}$ (C) $\frac{1}{6}$ (D) $\frac{1}{9}$ (E) $\frac{1}{12}$

GO ON TO THE NEXT PAGE.

Questions 21-25 refer to the following graph.

AVERAGE* DAILY TOTAL AMOUNT OF SALES AND NUMBER OF SALES FOR STORE *X*



*"Average" means "arithmetic mean."

Note: Drawn to scale.

21. What is the average total amount of sales made on a Friday for Store *X*?

(A) $200 (B) $300 (C) $400
(D) $500 (E) $600

22. On the average, what is the total amount of sales per week (Monday through Saturday) for Store *X*?

(A) $2,700 (B) $2,800 (C) $3,300
(D) $3,600 (E) $4,400

23. What is the average amount of a sale made on a Wednesday for Store *X*?

(A) $0.50 (B) $2.00 (C) $10.00
(D) $20.00 (E) $40.00

24. On which of the following days is the average amount of a sale greatest for Store *X*?

(A) Monday
(B) Tuesday
(C) Wednesday
(D) Thursday
(E) Saturday

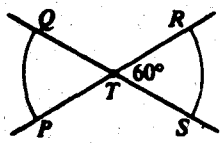
25. During the first week of a certain month, how many more sales were made in Store *X* on Saturday than on Monday?

(A) 15 (B) 25 (C) 30 (D) 35
(E) It cannot be determined from the information given.

GO ON TO THE NEXT PAGE.

26. A train travels from City X to City Y in 3 hours and 30 minutes at an average speed of 60 miles per hour. If the train returns at an average speed of 50 miles per hour, how long does the return trip take?

(A) 2 hr 55 min
(B) 3 hr 40 min
(C) 4 hr 12 min
(D) 4 hr 32 min
(E) 4 hr 40 min



27. In the figure above, if point T is 6 centimeters from every point on arc PQ and from every point on arc RS, what is the sum of the areas, in square centimeters, of regions PQT and TRS?

(A) 6
(B) 4π
(C) 6π
(D) 24
(E) 12π

$4 - n \square 6$

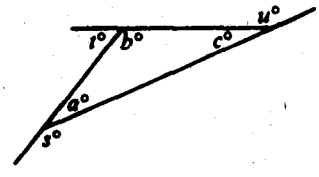
$4 - n \square 5$

28. Which of the following symbols should be substituted for $\square$ to make both of the statements above true for all integers n such that $-2 < n \leq 3$?

(A) $\leq$ (B) $<$ (C) $=$ (D) $>$ (E) $\geq$

29. $\left(\frac{8\sqrt{2}-4}{4}\right)^2 =$

(A) $9 - 4\sqrt{2}$
(B) $36 - 16\sqrt{2}$
(C) 8
(D) 9
(E) $32\sqrt{2}$



30. In the figure above, $\frac{a+b+c}{s+t+u} =$

(A) $\frac{1}{3}$ (B) $\frac{1}{2}$ (C) $\frac{2}{3}$ (D) 1 (E) $\frac{3}{2}$

FOR GENERAL TEST 16 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY					
Section 1			Section 4		
Number	Answer	P+	Number	Answer	P+
1	A	87	1	C	85
2	D	89	2	B	74
3	E	80	3	A	84
4	E	84	4	E	54
5	B	54	5	D	84
6	D	50	6	B	61
7	C	36	7	E	34
8	B	92	8	A	94
9	A	76	9	A	75
10	B	67	10	B	77
11	E	63	11	D	57
12	C	52	12	A	62
13	D	46	13	C	54
14	B	46	14	A	40
15	B	27	15	B	45
16	B	16	16	E	26
17	E	70	17	C	89
18	D	78	18	C	88
19	C	41	19	A	70
20	A	47	20	A	28
21	D	86	21	D	54
22	B	38	22	E	42
23	C	82	23	E	22
24	E	67	24	B	53
25	C	86	25	E	51
26	E	31	26	C	54
27	D	82	27	D	47
28	B	94	28	C	90
29	E	90	29	B	82
30	A	66	30	D	81
31	B	76	31	B	75
32	C	57	32	E	56
33	A	84	33	C	51
34	B	48	34	B	36
35	D	29	35	D	44
36	A	36	36	A	35
37	A	30	37	A	24
38	D	24	38	E	18

QUANTITATIVE ABILITY					
Section 2			Section 5		
Number	Answer	P+	Number	Answer	P+
1	B	90	1	A	85
2	D	86	2	C	93
3	C	93	3	D	85
4	A	86	4	A	86
5	A	78	5	B	81
6	B	84	6	D	86
7	C	76	7	B	74
8	B	85	8	A	62
9	B	36	9	C	64
10	A	63	10	B	57
11	D	49	11	D	47
12	B	52	12	B	46
13	A	61	13	A	41
14	D	43	14	C	35
15	C	38	15	C	27
16	D	93	16	D	94
17	B	88	17	D	85
18	B	83	18	B	85
19	C	71	19	E	70
20	E	66	20	C	68
21	D	75	21	E	78
22	B	69	22	C	75
23	D	35	23	C	43
24	B	27	24	B	49
25	E	8	25	E	61
26	E	56	26	C	73
27	C	53	27	E	51
28	A	37	28	A	46
29	D	35	29	A	38
30	D	32	30	B	37

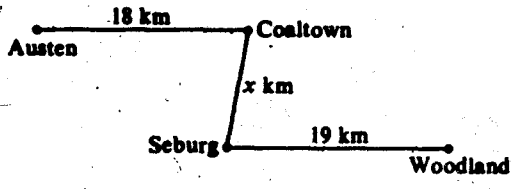
ANALYTICAL ABILITY					
Section 3			Section 6		
Number	Answer	P+	Number	Answer	P+
1	B	60	1	B	83
2	D	77	2	E	79
3	E	86	3	A	89
4	C	81	4	C	82
5	A	80	5	A	67
6	B	49	6	D	80
7	C	81	7	B	78
8	C	79	8	E	59
9	D	86	9	E	80
10	E	68	10	E	59
11	C	62	11	D	49
12	B	70	12	A	52
13	B	47	13	C	50
14	D	55	14	D	66
15	B	56	15	B	36
16	E	30	16	B	41
17	A	36	17	B	63
18	D	26	18	A	36
19	A	43	19	E	22
20	C	43	20	D	54
21	C	41	21	C	31
22	A	19	22	E	11
23	E	25	23	D	36
24	E	33	24	D	24
25	E	27	25	C	41

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

T 17 S63

A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

	Column A	Column B
1.	The cost of 3 pounds of peaches at \$0.34 per pound	\$1.00
2.	$\frac{3}{4} - \frac{2}{3}$	$\frac{1}{12}$

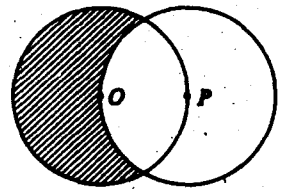


The map shows the only roads that connect the four towns and shows the distance along each road.

	Column A	Column B
3.	The road distance between Austen and Seburg	The road distance between Coaltown and Woodland
4.	$5^8 + 5^8$	10^8

$xy = 18$ and $x + y = 9$

	Column A	Column B
5.	x	y

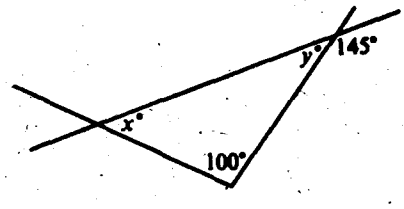
	Column A	Column B
		

The circles above, with centers O and P, each have radius r.

	Column A	Column B
6.	Twice the area of the shaded region	The area of the circular region with center P

$y = -3$

	Column A	Column B
7.	$y^3 - 3y - 2$	$y^3 + 3y + 10$



	Column A	Column B
8.	x	y

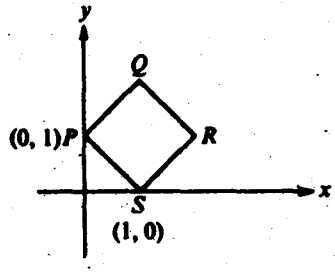
$0 < x < y < 1$

	Column A	Column B
9.	xy	$x + y$

GO ON TO THE NEXT PAGE.

A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

	Column A	Column B
10.	The area of a rectangular region with sides of lengths a and 5	The area of a rectangular region with sides of lengths $(a + 1)$ and 4
11.	$\frac{2\frac{1}{2}}{3\frac{3}{4}}$	$\frac{6\frac{1}{2}}{9\frac{3}{4}}$



In the rectangular coordinate system above, $PQRS$ is a square.

12.	The perimeter of $PQRS$	4

	Column A	Column B
	When integer n is divided by 9, the remainder is 2.	
13.	The remainder when n is divided by 3	2

A certain store sells each pencil at the same price regardless of the number of pencils sold. k of these pencils have a total price of q cents, and r of these pencils have a total price of s cents.

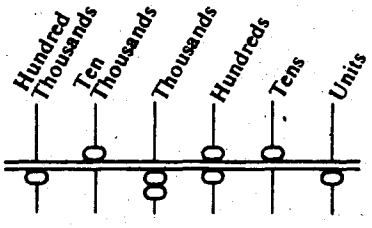
14.	ks	qr
15.	$a^2 + b^2$	$(a + b)^2$

GO ON TO THE NEXT PAGE.

Directions: Each of the Questions 16-30 has five answer choices. For each of these questions, select the best of the answer choices given.

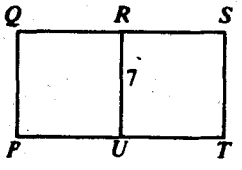
16. On a number line, what is the distance between -3 and 7?

(A) 10 (B) 8 (C) 7 (D) 5 (E) 4



17. In the figure above, each of the beads above the horizontal bar represents 5 times the place value indicated and each of the beads below the bar represents 1 times the place value indicated. What number is represented by the figure above?

(A) 512,651
(B) 512,615
(C) 156,651
(D) 152,651
(E) 152,251



18. In the figure above, if *PQRU* and *URST* are squares, what is the area of rectangular region *PQST*?

(A) 28 (B) 42 (C) 49 (D) 98
(E) It cannot be determined from the information given.

19. Each of the following is the square of an integer EXCEPT

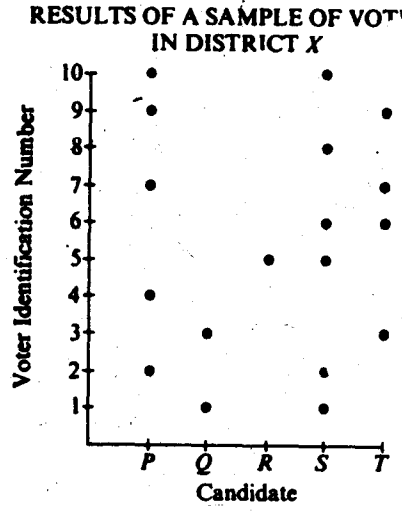
(A) 81 (B) 100 (C) 121
(D) 196 (E) 215

20. The average (arithmetic mean) of two numbers is $2x + 1$. If one of the numbers is x, then the other number is

(A) $x - 1$
(B) $x + 1$
(C) $2x - 1$
(D) $3x + 1$
(E) $3x + 2$

GO ON TO THE NEXT PAGE.

* Questions 21-25 refer to the following graph.



The graph above shows how a sample of 10 different voters (vertical axis) voted for 5 different candidates (horizontal axis). Each voter voted for either one or two of the five candidates. (No voter voted twice for the same candidate.) The two candidates receiving the most votes were the winners. The sample constituted 5 percent of those in the district who voted, and the number of votes in the district for each candidate was in the same proportion as the number of votes in the sample for each candidate.

21. How many people in the sample voted for both winners?

(A) One
(B) Two
(C) Three
(D) Five
(E) Six

22. What fraction of the total number of votes cast did the two winners receive?

(A) $\frac{11}{18}$ (B) $\frac{11}{20}$ (C) $\frac{1}{2}$ (D) $\frac{1}{3}$ (E) $\frac{3}{10}$

23. What percent of the sample voted for at least one of the two winners?

(A) 11%
(B) 20%
(C) 55%
(D) 61%
(E) 90%

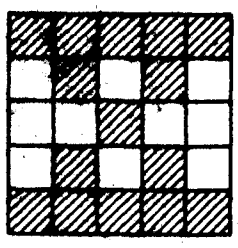
24. How many votes were cast in district X?

(A) 18 (B) 90 (C) 200
(D) 360 (E) 400

25. In district X, candidate T received how many more votes than candidate Q?

(A) 2 (B) 10 (C) 20 (D) 40 (E) 80

GO ON TO THE NEXT PAGE.

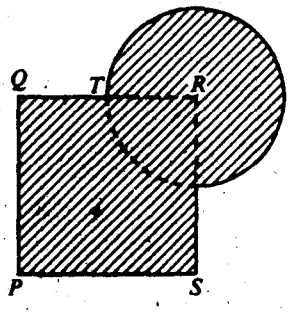


26. In the figure above, the number of shaded squares is what percent greater than the number of unshaded squares?

(A) 25% (B) 40% (C) 50%
(D) 60% (E) 75%

27. If x, y, and z are three different positive integers less than 10, what is the greatest possible value of the expression $\frac{x-y}{z}$?

(A) 8
(B) 7
(C) 6
(D) 5
(E) 4



28. In the figure above, vertex R of square $PQRS$ is the center of the circle. If $QT = TR = 3$, what is the area of the shaded region?

(A) $9 + \frac{27}{4}\pi$
(B) $9 + 27\pi$
(C) $36 + \frac{27}{4}\pi$
(D) $36 + 9\pi$
(E) $36 + 27\pi$

29. If p is a prime number greater than 11, and p is the sum of the two prime numbers x and y, then x could be which of the following?

(A) 2 (B) 5 (C) 7 (D) 9 (E) 13

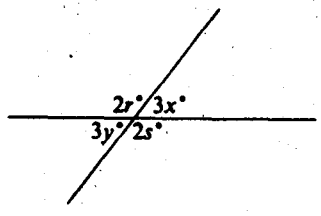
30. If 18 identical machines required 40 days to complete a job, how many fewer days would have been required to do the job if 6 additional machines of the same type had been used from the beginning?

(A) 10
(B) $13\frac{1}{3}$
(C) 16
(D) $26\frac{2}{3}$
(E) 36

T 17 S4

A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

	Column A	Column B
1.	The least common denominator of $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$	15



2.	$r + y$	$s + x$

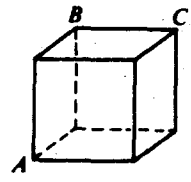
$9x + 9 = 90$

3.	x	9

Toni bought n dozen eggs for \$12 and m half gallons of milk for \$6.

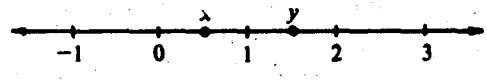
4.	The price Toni paid for a dozen eggs	The price Toni paid for a half gallon of milk
5.	$2 + \sqrt{3}$	$1 + \sqrt{4}$

	Column A	Column B



The figure above is a cube.

6.	The distance from A to B	The distance from A to C
7.	$(2.3)(12.45)$	$(0.23)(124.5)$



8.	$2x + y$	$2y + x$

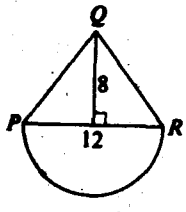
In ΔRST, $RS = ST$ and the measure of $\angle RST$ is 20°.

9.	The measure of $\angle TRS$	80°

GO ON TO THE NEXT PAGE.

A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

	Column A	Column B
	x and y are positive numbers.	
10.	$\left(\frac{x+y}{2}\right)^2 - \left(\frac{x-y}{2}\right)^2$	0



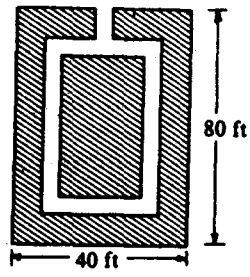
The diameter of the semicircle is 12 and the height of the triangle is 8.

11.	The area of the semicircular region	The area of triangular region PQR

Fahrenheit temperatures recorded at location X at 4-hour intervals were $-8°$, $-5°$, $7°$, $5°$, $3°$, $1°$.

12.	The average (arithmetic mean) of the temperatures recorded above	1° F

	Column A	Column B



The diagram represents a rectangular garden. The shaded regions are planted in flowers, and the unshaded region is a walk 2 feet wide. All angles are right angles.

13.	The sum of the areas of the shaded regions	2,800 square feet
14.	8^7	$8^6 + 2 \cdot 8^6 + 4 \cdot 8^6$
	$x \neq 0$	
15.	$\frac{19}{20}x$	$\frac{20}{19}\left(\frac{1}{x}\right)$

GO ON TO THE NEXT PAGE.

Directions: Each of the Questions 16-30 has five answer choices. For each of these questions, select the best of the answer choices given.

16. If $a = 3b + c$, what is the value of b when $a = 17$ and $c = 2$?

(A) 5

(B) $6\frac{1}{3}$

(C) 12

(D) 15

(E) 45

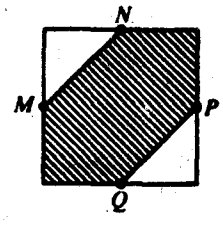
17. $\frac{\frac{1}{3}}{6} =$

(A) 2 (B) $\frac{1}{2}$ (C) $\frac{1}{3}$ (D) $\frac{1}{9}$ (E) $\frac{1}{18}$

18. If $4x - 2y = 8$, what is the value of $2x - y$?

(A) 3 (B) 4 (C) 5 (D) 6

(E) It cannot be determined from the information given.



19. In the square above, M, N, P, and Q are midpoints of the sides. If the area of the square region is A, what is the area of the shaded region?

(A) $\frac{1}{3}A$

(B) $\frac{1}{2}A$

(C) $\frac{2}{3}A$

(D) $\frac{3}{4}A$

(E) $\frac{7}{8}A$

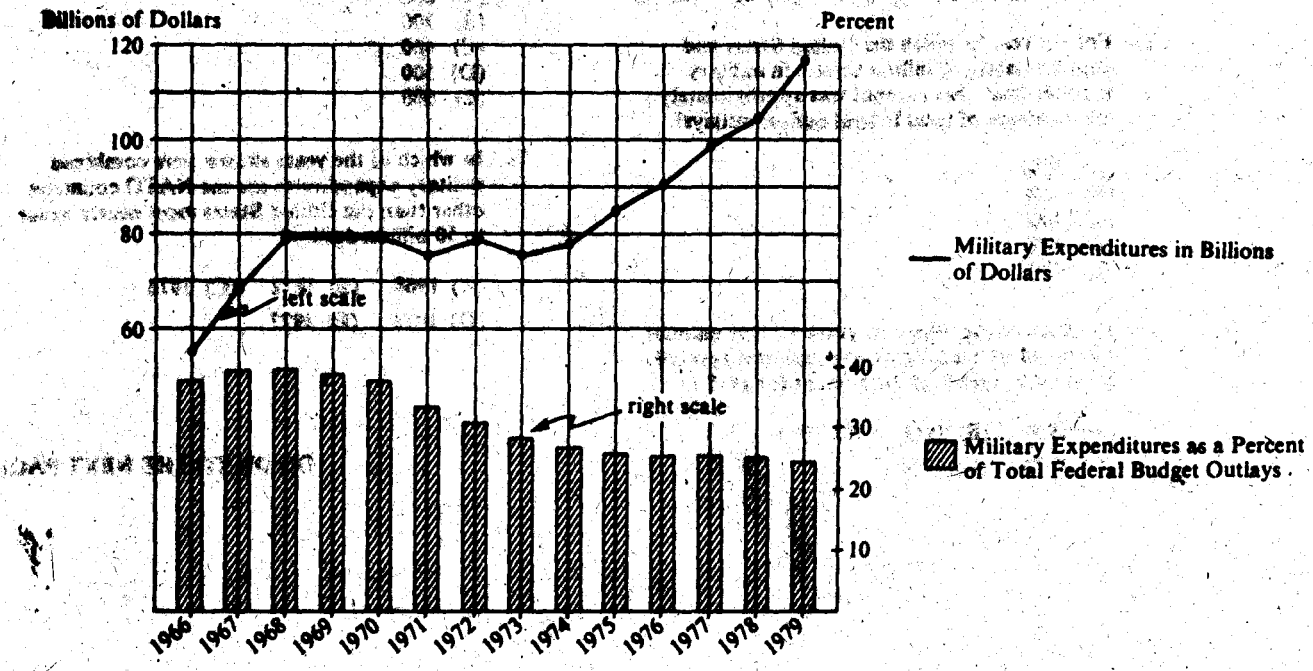
20. What is the least number x for which $(2x + 1)(x - 2) = 0$?

(A) -2 (B) -1 (C) $-\frac{1}{2}$ (D) $\frac{1}{2}$ (E) 2

GO ON TO THE NEXT PAGE.

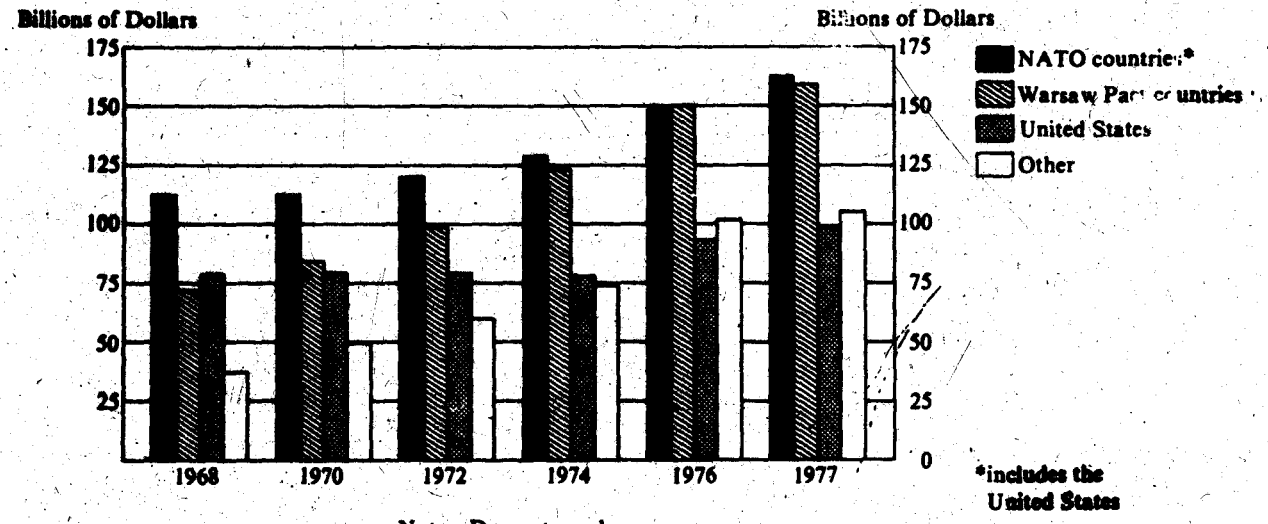
Questions 21-24 refer to the following graphs.

FEDERAL BUDGET OUTLAYS OF THE UNITED STATES
FOR MILITARY EXPENDITURES, 1966-1979



Note: Drawn to scale.

WORLDWIDE MILITARY EXPENDITURES: 1968 TO 1977



Note: Drawn to scale.

GO ON TO THE NEXT PAGE.

21. In 1968 the military expenditures of the United States were approximately how many billion dollars?

(A) 100 (B) 80 (C) 70 (D) 60 (E) 40

22. For the year in which the United States had approximately 70 billion dollars in military expenditures, that amount was approximately what percent of total federal budget outlays?

(A) 30%
(B) 40%
(C) 50%
(D) 60%
(E) 70%

23. In which of the following years was the amount of United States military expenditures approximately 80 percent of the amount for 1978 ?

(A) 1967 (B) 1968 (C) 1973
(D) 1975 (E) 1976

24. In 1977, federal budget outlays for the United States totaled approximately how many billion dollars?

(A) 200
(B) 300
(C) 400
(D) 500
(E) 600

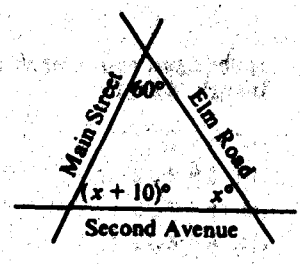
25. In which of the years shown were combined military expenditures for the NATO countries other than the United States most nearly equal to 50 billion dollars?

(A) 1968 (B) 1972 (C) 1974
(D) 1976 (E) 1977

GO ON TO THE NEXT PAGE.

26. In a certain club for men and women, 40 percent of the members are men. If 20 percent of the men and 10 percent of the women members went to a theater performance, what percent of the total membership went to the performance?

(A) 12% (B) 14% (C) 15%
(D) 16% (E) 30%



27. The figure above shows the angles of intersection of three streets. At what angle do Second Avenue and Main Street intersect?

(A) 50°
(B) 55°
(C) 65°
(D) 70°
(E) 75°

28. If x, y, and z are consecutive integers and $x < y < z$, which of the following must be true?

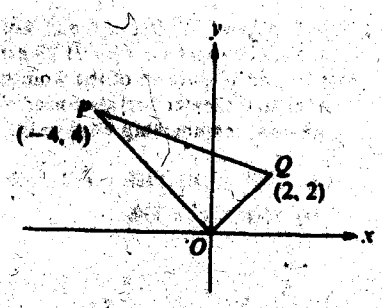
I. xyz is even.
II. $x + y + z$ is even.
III. $(x + y)(y + z)$ is odd.

(A) None
(B) I only
(C) II only
(D) I and III only
(E) I, II, and III

GO ON TO THE NEXT PAGE.

29. If $\langle n \rangle = \frac{n(n+1)}{2}$ for all integers n, and $m = \langle 5 \rangle$, then $\langle m \rangle =$

(A) 120
(B) 225
(C) 240
(D) 420
(E) 840



30. In the figure above, what is the perimeter of triangle OPQ?

(A) $4 + 2\sqrt{2}$
(B) $8 + 4\sqrt{2}$
(C) $6 + 2\sqrt{5}$
(D) $6 + 6\sqrt{2}$
(E) $6\sqrt{2} + 2\sqrt{10}$

FOR GENERAL TEST 17 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY					
Section 1			Section 2		
Number	Answer	P+	Number	Answer	P+
1	C	83	1	C	91
2	A	80	2	D	56
3	C	57	3	D	66
4	B	88	4	A	72
5	E	91	5	B	63
6	C	47	6	B	46
7	C	21	7	B	46
8	C	92	8	B	86
9	A	86	9	C	89
10	E	82	10	D	88
11	B	77	11	A	88
12	A	45	12	C	55
13	D	55	13	E	39
14	E	21	14	D	37
15	E	17	15	B	22
16	A	9	16	A	27
17	D	79	17	A	44
18	D	43	18	C	51
19	B	58	19	E	25
20	C	38	20	B	38
21	E	84	21	D	84
22	B	53	22	B	69
23	A	89	23	C	72
24	C	58	24	A	40
25	B	70	25	B	42
26	C	63	26	E	49
27	D	76	27	A	58
28	A	94	28	A	91
29	C	71	29	A	86
30	A	68	30	D	83
31	A	69	31	D	73
32	D	43	32	A	73
33	A	45	33	E	46
34	B	45	34	B	50
35	D	39	35	E	25
36	A	37	36	E	31
37	E	36	37	C	25
38	E	27	38	D	20

QUANTITATIVE ABILITY					
Section 3			Section 4		
Number	Answer	P+	Number	Answer	P+
1	A	95	1	B	90
2	C	92	2	C	89
3	B	84	3	C	89
4	B	83	4	D	85
5	D	81	5	A	82
6	A	76	6	B	82
7	A	74	7	C	82
8	A	81	8	B	80
9	B	69	9	C	69
10	D	59	10	A	68
11	C	60	11	A	58
12	A	49	12	B	65
13	C	49	13	D	59
14	C	41	14	A	42
15	D	31	15	D	49
16	A	95	16	A	95
17	D	90	17	E	77
18	D	80	18	B	74
19	E	81	19	D	72
20	E	53	20	C	59
21	B	83	21	B	91
22	A	76	22	B	81
23	E	48	23	D	55
24	D	47	24	C	58
25	D	48	25	C	46
26	C	45	26	B	61
27	B	51	27	C	57
28	C	47	28	D	29
29	A	36	29	A	34
30	A	25	30	E	36

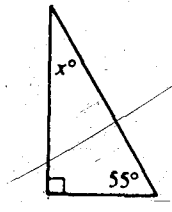
ANALYTICAL ABILITY					
Section 5			Section 6		
Number	Answer	P+	Number	Answer	P+
1	A	71	1	E	87
2	A	84	2	A	91
3	B	53	3	B	94
4	C	71	4	A	70
5	A	89	5	D	70
6	C	66	6	A	81
7	E	91	7	E	51
8	D	83	8	C	69
9	B	74	9	B	67
10	D	50	10	E	38
11	E	35	11	D	30
12	B	56	12	A	33
13	E	41	13	E	32
14	A	46	14	D	70
15	C	37	15	B	46
16	D	53	16	C	41
17	A	40	17	E	36
18	C	33	18	A	42
19	D	21	19	D	27
20	E	27	20	D	38
21	B	33	21	D	28
22	D	19	22	C	37
23	B	51	23	C	55
24	C	49	24	B	41
25	E	44	25	C	50

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

T18 S3

A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

	Column A	Column B
1.	(40% of 50) + 60	(60% of 50) + 40
2.	$\frac{1}{12}$ of 17	$\frac{1}{17}$ of 12
	$x + y = -1$	
3.	x	y
4.	23(784)	24(783)
	$0 < r < t$	
5.	$\frac{r}{t}$	$\frac{t}{r}$



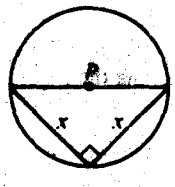
6.	r	35

	Column A	Column B
	For each home in Town X, the amount of property tax is p percent of the value of the home. The property tax on a home whose value is \$45,000 is \$1,200.	
7.	The property tax on a home in Town X whose value is \$54,000	\$1,300
	The area of square region S is 36.	
8.	The perimeter of S	24
	A printer numbered consecutively the pages of a book, beginning with 1 on the first page. In numbering the pages, he printed a total of 189 digits.	
9.	The number of pages in the book	100
	The average (arithmetic mean) of x, y, and 6 is 3.	
10.	$\frac{x+y}{2}$	$\frac{3}{2}$

GO ON TO THE NEXT PAGE.

A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

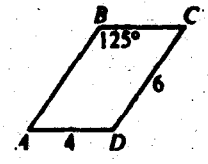
	Column A	Column B
	Triangular regions T_1 and T_2 have equal areas and have heights h_1 and h_2, respectively.	
11.	The area of T_1 / h_1	The area of T_2 / h_2
12.	$\frac{3 \cdot 3 \cdot 3}{6 \cdot 6 \cdot 6}$	$\left(\frac{1}{2}\right)^3$



The area of the circular region with center P is 16π.

13.	x	4

	Column A	Column B
	m, p, and x are positive integers and $mp = x$.	
14.	m	x



$ABCD$ is a parallelogram.

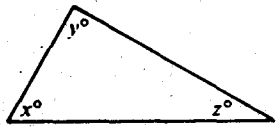
15.	The area of region $ABCD$	24

GO ON TO THE NEXT PAGE.

Directions: Each of the Questions 16-30 has five answer choices. For each of these questions, select the best of the answer choices given.

16. When walking, a certain person takes 16 complete steps in 10 seconds. At this rate, how many complete steps does the person take in 72 seconds?

(A) 45
(B) 78
(C) 86
(D) 99
(E) 115



17. In the figure above, what is the value of $\frac{x+y+z}{45}$?

(A) 2 (B) 3 (C) 4 (D) 5 (E) 6

18. $52.68 \times \frac{1}{100} =$

(A) 0.05268 (B) 0.5268 (C) 5.268
(D) 526.8 (E) 52,680

19. If $b - c = 3$, and $a + c = 32$, then $a + b =$

(A) 30 (B) 35 (C) 40 (D) 42 (E) 50

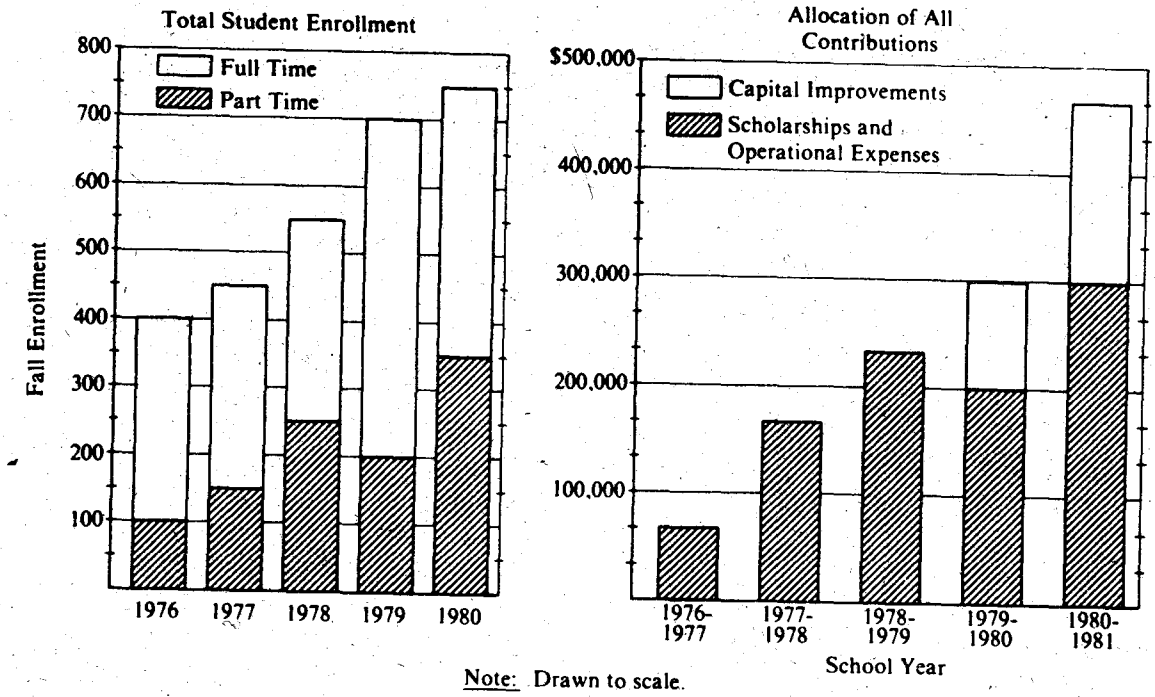
20. A rectangular floor 18 feet by 10 feet is to be completely covered with carpeting that costs x dollars per square yard. In terms of x, how many dollars will the carpeting cost? (1 yard = 3 feet)

(A) $20x$
(B) $28x$
(C) $60x$
(D) $180x$
(E) $540x$

GO ON TO THE NEXT PAGE.

Questions 21-25 refer to the following graphs.

COLLEGE *R*: ENROLLMENT AND CONTRIBUTIONS
1976-1980



Note: Drawn to scale.

21. What was the total number of students enrolled at College *R* in the fall of 1979 ?

(A) 200
(B) 250
(C) 500
(D) 650
(E) 700

22. By what percent did the number of part-time students enrolled increase from the fall of 1979 to the fall of 1980 ?

(A) 7%
(B) 42%
(C) $66\frac{2}{3}\%$
(D) 75%
(E) 80%

GO ON TO THE NEXT PAGE.

23. What was the increase, if any, in the number of full-time students enrolled at College R from the fall of 1976 to the fall of 1977 ?

(A) 0 (B) 50 (C) 100
(D) 150 (E) 200

24. In the 1978-1979 school year, if 12 percent of the amount of contributions allocated to scholarships and operational expenses was allocated to heating costs, approximately how much was NOT allocated to heating costs?

(A) \$2,000
(B) \$25,000
(C) \$176,000
(D) \$205,000
(E) \$250,000

25. Approximately what was the total amount of contributions to College R from the 1978-1979 school year through the 1980-1981 school year, inclusive?

(A) \$967,000
(B) \$1,000,000
(C) \$9,000,000
(D) \$9,667,000
(E) \$10,000,000

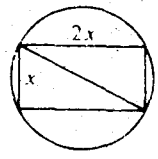
---

26. If $x \neq 0$, then $\frac{x(x^2)^3}{x^2} =$

(A) x^2 (B) x^3 (C) x^4 (D) x^5 (E) x^6

27. Seven is equal to how many thirds of seven?

(A) $\frac{1}{3}$
(B) 1
(C) 3
(D) 7
(E) 21



28. In the figure above, if the area of the inscribed rectangular region is 32, then the circumference of the circle is

(A) 20π (B) $4\pi\sqrt{5}$ (C) $4\pi\sqrt{3}$
(D) $2\pi\sqrt{5}$ (E) $2\pi\sqrt{3}$

29. Which of the following equals the reciprocal of $x - \frac{1}{y}$, where $x - \frac{1}{y} \neq 0$?

(A) $\frac{1}{x} - y$

(B) $-\frac{y}{x}$

(C) $\frac{y}{x-1}$

(D) $\frac{x}{xy-1}$

(E) $\frac{y}{xy-1}$

30. A certain integer n is a multiple of both 5 and 9. Which of the following must be true?

I. n is an odd integer.
II. n is equal to 45.
III. n is a multiple of 15.

(A) III only
(B) I and II only
(C) I and III only
(D) II and III only
(E) I, II, and III

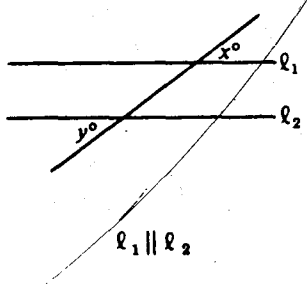
T 18 S6

A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

	Column A	Column B
	$k + n = 13$ $n + 3 = 8$	
1.	k	n

Betty spent \$75 for a bicycle and she also spent \$27 repairing it. She then sold it for \$120.

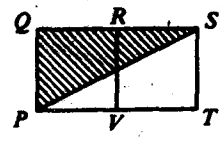
2.	The money Betty received in excess of the total amount she spent	\$20



$\ell_1 \parallel \ell_2$

3.	x	y
4.	$-2(-3)(-4)$	$0(4)(8)$

	Column A	Column B
5.	10	$11 + x$
6.	$\frac{1}{2} + \frac{3}{5}$	$\frac{1+3}{2+5}$



Squares $PQRV$ and $VRST$ have sides of length 6.

7.	The area of shaded region PQS	36

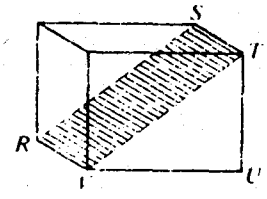
R, S, and T are 3 consecutive odd integers and $R < S < T$.

8.	$R + S + 1$	$S + T - 1$

GO ON TO THE NEXT P GE.

A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

Column A	Column B

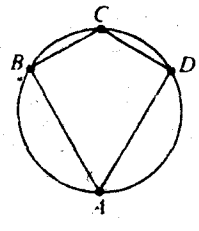


In the rectangular solid shown, $TU = 3$, $UV = 4$, and $VR = 2$.

9.	The area of the shaded rectangular region	9

$x^2y > 0$
$xy^2 < 0$

10.	x	y



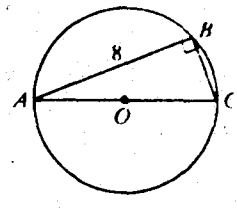
The diameter of the circle is 10.

11.	The area of the region enclosed by quadrilateral $ABCD$	40

	Column A	Column B
12.	$2\frac{1}{2}$ percent of 1,120	$2^2 \cdot 7$

Working at constant rates, machine R completely presses x records in 0.5 hour and machine S completely presses x records in 0.75 hour ($x > 0$).

13.	The number of records completely pressed by R in 3 hours	The number of records completely pressed by S in 4 hours



The circle with center O has a radius of 5.

14.	The perimeter of $\triangle ABC$	24

x, y, and z are negative integers.

15	The product of x, y, and z	The sum of x, y, and z

GO ON TO THE NEXT PAGE.

Directions: Each of the Questions 16-30 has five answer choices. For each of these questions, select the best of the answer choices given.

16. $\sqrt{(42-6)(25+11)}$

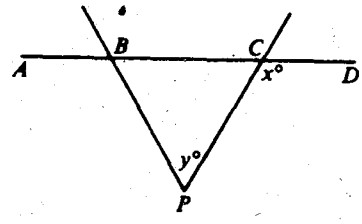
(A) 6 (B) 18 (C) 36
(D) 120 (E) 1,296

17. The price per pair of brand X socks is \$2 and the price per pair of brand Y socks is \$3. If there is no sales tax and a customer chooses only from among these two brands, what is the greatest number of pairs of socks that he can buy with exactly \$25 ?

(A) 9
(B) 10
(C) 11
(D) 12
(E) 20

18. What is the remainder when 6^3 is divided by 8 ?

(A) 5
(B) 3
(C) 2
(D) 1
(E) 0



19. In the figure above, $BP = CP$. If $x = 120$, then $y =$

(A) 30 (B) 60 (C) 75 (D) 90 (E) 120

20. If $y = 3x$ and $z = 2y$, then in terms of x, $x + y + z =$

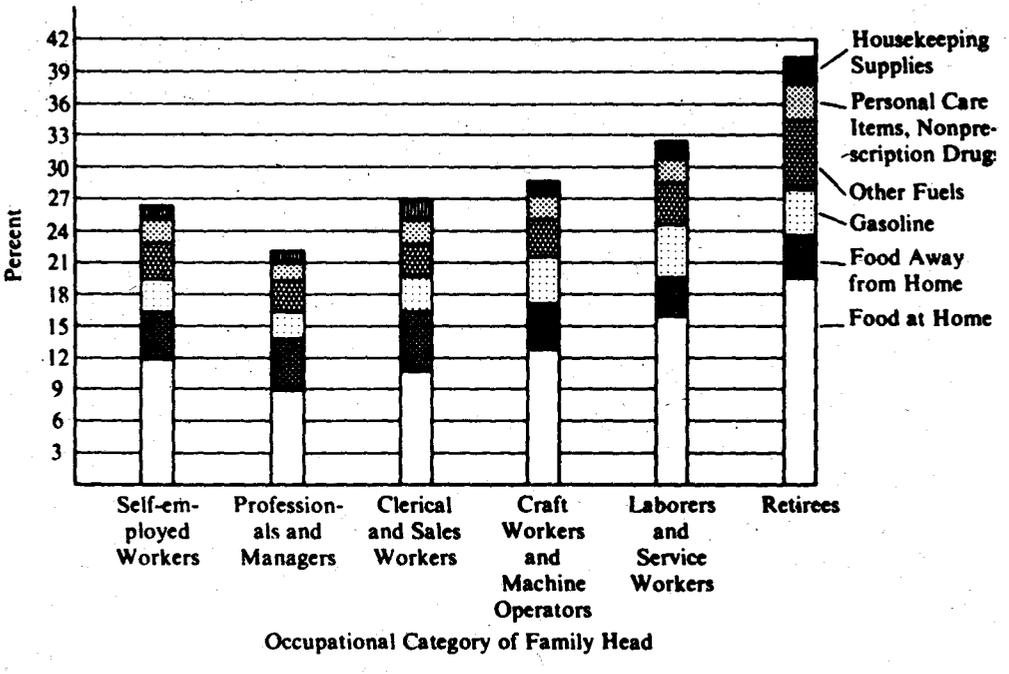
(A) $10x$ (B) $9x$ (C) $8x$
(D) $6x$ (E) $5x$

GO ON TO THE NEXT PAGE.

Questions 21-25 refer to the following data.

EXPENDITURES ON FOOD AND SELECTED NONFOOD ITEMS, 1973

Percent of Average Annual Income (before taxes) Spent by Families on Food and Selected Nonfood Items



Note: Drawn to scale.

GO ON TO THE NEXT PAGE.

Average Weekly Food and Household Expenditures

Occupational Category of Family Head	Percent of Food and Household Expenditures						
	Food at Home			Food Away from Home	Personal Care Items, Nonprescription Drugs	House-keeping Supplies	Average Weekly Food and Household Expenditures
	Meats, Poultry, Seafood	Cereals, Bakery and Dairy Products, Fruits and Vegetables	Other Food at Home				
Self-employed Workers	22	25	14	22	10	7	$35.88
Professionals and Managers	19	23	11	29	11	7	$38.77
Clerical and Sales Workers	21	22	11	28	11	7	$32.07
Craft Workers and Machine Operators	23	25	15	21	9	7	$35.44
Laborers and Service Workers	24	27	14	19	9	7	$28.86
Retirees	23	29	14	16	11	7	$19.83

21. For which of the following categories was the percent of the average annual income (before taxes) spent on food at home the least?

(A) Self-employed workers
(B) Professionals and managers
(C) Clerical and sales workers
(D) Craft workers and machine operators
(E) Laborers and service workers

22. Approximately what average amount per week did the families of professionals and managers spend on food away from home?

(A) $2
(B) $8
(C) $11
(D) $29
(E) $38

23. Approximately what percent of the average weekly food and household expenditures of clerical and sales workers was spent on fruits and vegetables?

(A) 4% (B) 7% (C) 22% (D) 25%
(E) It cannot be determined from the information given.

24. Approximately what percent of the total average annual income (before taxes) of retirees was spent on meats, poultry, and seafood (consumed at home)?

(A) 7% (B) 10% (C) 20%
(D) 23% (E) 31%

25. Which of the following statements can be inferred from the information given?

I. Of the categories shown, retirees had the greatest average annual incomes (before taxes).
II. For all the categories shown, the average amount spent per week on housekeeping supplies was the same.
III. Of the categories shown, the average amount spent per week on meats, poultry, and seafood (consumed at home) was greatest for craft workers and machine operators.

(A) I only (B) II only (C) III only
(D) I and II (E) II and III

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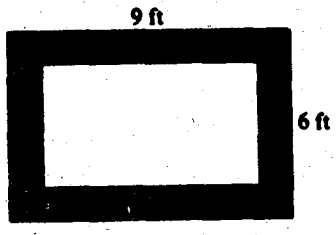


26. The rectangular rug shown in the figure above has a floral border 1 foot wide on all sides. What is the area, in square feet, of that portion of the rug that excludes the border?

(A) 28
(B) 40
(C) 45
(D) 48
(E) 53

27. If $\frac{d-3n}{7n-d} = 1$, which of the following must be true about the relationship between d and n?

(A) n is 4 more than d.

(B) d is 4 more than n.

(C) n is $\frac{7}{3}$ of d.

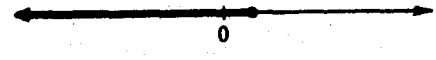
(D) d is 5 times n.

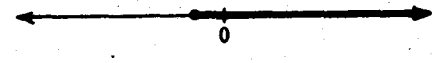
(E) d is 2 times n.

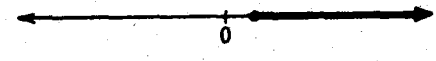
28. How many positive whole numbers less than 81 are NOT equal to squares of whole numbers?

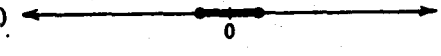
(A) 9 (B) 70 (C) 71 (D) 72 (E) 73

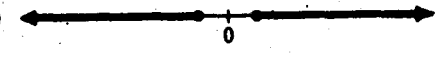
29. Of the following, which could be the graph of $2 - 5x \leq \frac{6x-5}{-3}$?

(A) 

(B) 

(C) 

(D) 

(E) 

$$A = \frac{\pi d^2}{x}$$

30. If the formula above gives the area A of a circular region in terms of its diameter d, then $x =$

(A) $\frac{1}{4}$ (B) $\frac{1}{2}$ (C) 1 (D) 2 (E) 4

FOR GENERAL TEST 18 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY					
Section 1			Section 4		
Number	Answer	P+	Number	Answer	P+
1	C	67	1	E	88
2	E	86	2	D	80
3	A	66	3	B	79
4	E	61	4	A	69
5	B	52	5	B	69
6	D	44	6	C	51
7	D	18	7	B	41
8	B	91	8	D	94
9	E	78	9	D	87
10	D	50	10	A	81
11	C	51	11	D	70
12	A	38	12	E	59
13	E	41	13	A	42
14	C	38	14	B	37
15	A	27	15	B	22
16	C	14	16	B	30
17	B	86	17	E	66
18	C	79	18	A	50
19	A	84	19	D	54
20	D	66	20	B	71
21	E	78	21	C	40
22	C	60	22	E	38
23	A	78	23	B	42
24	E	82	24	D	70
25	D	76	25	C	54
26	E	29	26	A	61
27	E	60	27	D	18
28	E	86	28	D	66
29	A	78	29	E	64
30	B	81	30	A	60
31	C	77	31	D	71
32	D	86	32	C	67
33	C	51	33	E	44
34	B	66	34	A	39
35	A	42	35	C	38
36	D	34	36	D	29
37	C	26	37	D	28
38	A	24	38	B	20

QUANTITATIVE ABILITY					
Section 3			Section 6		
Number	Answer	P+	Number	Answer	P+
1	A	87	1	A	91
2	A	87	2	B	94
3	D	82	3	C	93
4	B	83	4	B	87
5	B	84	5	D	86
6	C	82	6	A	85
7	A	72	7	C	75
8	C	74	8	B	70
9	B	59	9	A	77
10	C	44	10	B	51
11	D	59	11	D	53
12	C	64	12	C	59
13	A	47	13	A	61
14	D	42	14	C	55
15	B	27	15	D	41
16	E	89	16	C	87
17	C	84	17	D	81
18	B	87	18	E	86
19	B	79	19	B	86
20	A	42	20	A	71
21	E	93	21	B	85
22	D	62	22	C	56
23	A	90	23	E	59
24	C	58	24	A	21
25	B	46	25	C	28
26	D	50	26	A	32
27	C	40	27	D	45
28	B	39	28	D	32
29	E	33	29	C	32
30	A	27	30	E	34

ANALYTICAL ABILITY					
Section 2			Section 5		
Number	Answer	P+	Number	Answer	P+
1	C		1	D	65
2	B	93	2	C	79
3	C	89	3	E	84
4	A	96	4	A	80
5	D	89	5	B	61
6	A	82	6	C	5
7	E	48	7	B	77
8	B	76	8	B	67
9	C	71	9	A	63
10	A	58	10	C	72
11	E	89	11	D	45
12	D	39	12	B	45
13	C	65	13	E	35
14	A	58	14	A	63
15	B	71	15	C	53
16	D	60	16	E	45
17	D	72	17	D	48
18	B	56	18	D	43
19	A	52	19	C	76
20	E	24	20	B	52
21	A	32	21	C	42
22	D	27	22	D	24
23	C	67	23	B	50
24	D	39	24	E	7
25	E	21	25	A	22

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

T 19 S 2

A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

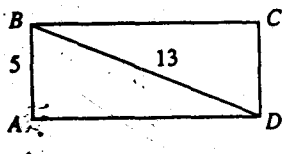
	Column A	Column B
1.	$\frac{2+1}{2+3}$	$\frac{1}{3}$

A spraying machine uses 6 full 5-gallon buckets of fungicide every 20 minutes.

	Column A	Column B
2.	The number of gallons of fungicide the machine uses during 8 hours of spraying	720

For a temperature of x degrees Fahrenheit, the equivalent temperature in degrees Celsius is $\frac{5}{9}(x - 32)$.

	Column A	Column B
3.	The temperature in degrees Celsius that is equivalent to 270 degrees Fahrenheit	140

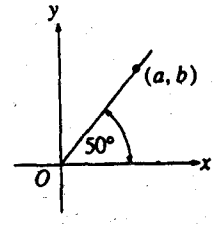


$ABCD$ is a rectangle.

	Column A	Column B
4.	The area of region $ABCD$	50

$2x + y = 5$
$3x - y = 10$

	Column A	Column B
5.	x	2
6.	$\frac{34}{0.339}$	100



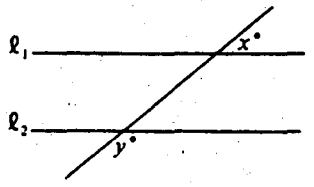
	Column A	Column B
7.	a	b

$x \neq 0$

	Column A	Column B
8.	$-x$	$-2x$

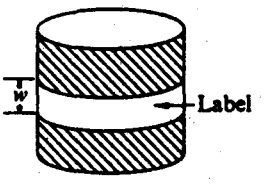
GO ON TO THE NEXT PAGE.

A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

	Column A	Column B
		
	ℓ_1 is not parallel to ℓ_2.	
9.	$x + y$	180

	x and y are consecutive odd integers.	
10.	$3(x - y)^4$	48

	Points P, R, and T lie on a straight line. The distance from P to R is 21, and the distance from P to T is 9.	
11.	The distance from R to T	16

	Column A	Column B
		
	A rectangular label is attached to a right circular cylinder with radius r. The label, which encircles the cylinder without overlap, has width w and an area equal to the area of the base of the cylinder.	
12.	w	r

	x is a positive integer.	
13.	$\frac{1}{2^x}$	$\frac{1}{3^x} + \frac{1}{3^x}$

	$yz > 0$ $xy < 0$	
14.	xz	0

	$n = 2^4 \cdot 5^6$ k is an integer. 10^k is a factor of n.	
15.	The greatest possible value of 10^k	10,000

GO ON TO THE NEXT PAGE.

Directions: Each of the Questions 16-30 has five answer choices. For each of these questions, select the best of the answer choices given.

16. Which of the following equations can be used to find the value of x if 8 more than $9x$ is 3 times the sum of 6 and x?

(A) $9x + 8 = 3x + 6$
(B) $8 + 9x = 3(x - 6)$
(C) $9x + 8 = 3(x + 6)$
(D) $3(8 + 9x) = 6x$
(E) $9x + 8 = 3 + 6 + x$

17. 42 is what percent of 70?

(A) 57%
(B) 60%
(C) 67%
(D) 70%
(E) 167%

18. Which of the following is equivalent to $\frac{2}{\frac{1}{2^3}}$?

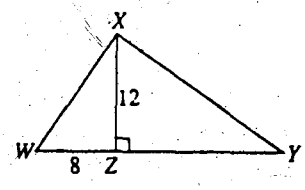
(A) 2^4

(B) 2^2

(C) $\frac{1}{2}$

(D) $\frac{1}{2^2}$

(E) $\frac{1}{2^4}$



19. In the figure above, if the area of $\triangle XYZ$ is 60, then $WY =$

(A) 5
(B) 10
(C) 12
(D) 13
(E) 18

20. Ground oats, wheat bran, linseed meal, and ground barley are mixed by weight in the ratio of 10 : 6 : 2 : 2, respectively. How many tons of wheat bran are there in 15 tons of the mixture?

(A) $1\frac{1}{2}$

(B) $2\frac{1}{2}$

(C) 3

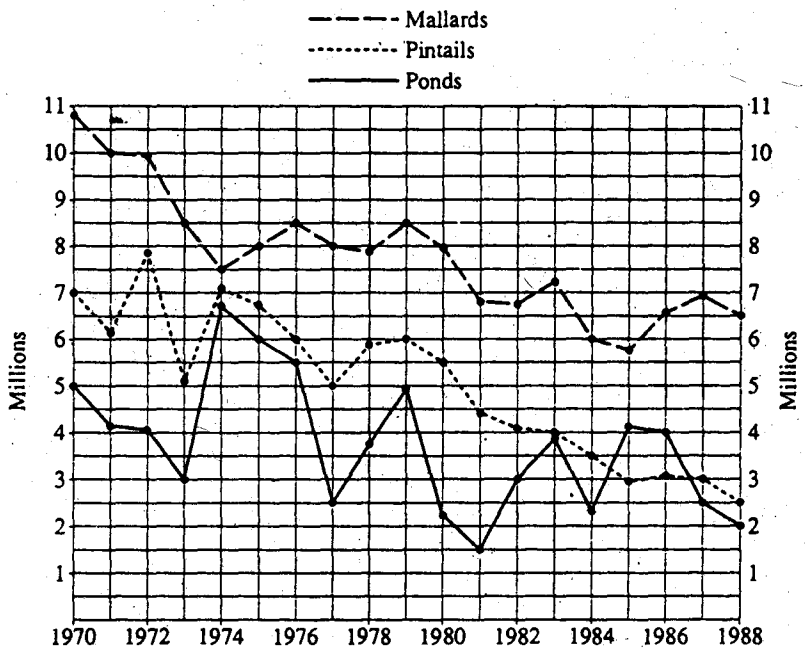
(D) $4\frac{1}{2}$

(E) $7\frac{1}{2}$

GO ON TO THE NEXT PAGE.

Questions 21-25 refer to the following graph.

THE NUMBER OF PONDS AND THE POPULATIONS
OF TWO SPECIES OF DUCKS (MALLARDS AND PINTAILS)
IN A REGION OF NORTH AMERICA: 1970 – 1988



Note: Drawn to scale.

GO ON TO THE NEXT PAGE.

21. By approximately how many million did the mallard population decrease from 1970 to 1988 ?

(A) 0.6
(B) 2.8
(C) 3.6
(D) 4.3
(E) 7.0

22. In 1984 the population of pintails was approximately what fraction of the mallard population?

(A) $\frac{5}{7}$
(B) $\frac{7}{12}$
(C) $\frac{1}{3}$
(D) $\frac{1}{4}$
(E) $\frac{3}{20}$

23. What was the approximate percent increase in the number of ponds from 1973 to 1974 ?

(A) 80%
(B) 125%
(C) 175%
(D) 200%
(E) 375%

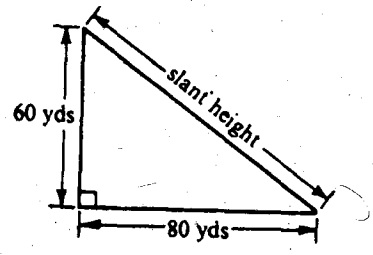
24. During which of the following periods was the percent decrease in the mallard population closest to 25 percent?

(A) 1970 to 1973
(B) 1972 to 1973
(C) 1974 to 1986
(D) 1980 to 1984
(E) 1984 to 1985

25. For any pair of successive years between 1977 and 1982, inclusive, the increase or decrease in the number of ponds was between

(A) 0.7 and 2.8 million
(B) 1.0 and 3.0 million
(C) 1.5 and 5.3 million
(D) 2.5 and 4.8 million
(E) 4.1 and 5.3 million

GO ON TO THE NEXT PAGE.

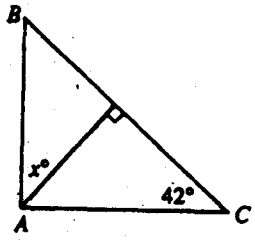


26. The figure above shows a cross section of a grandstand that seats 1,000 people per 2 yards of slant height. What is the total number of seats in the grandstand?

(A) 25,000
(B) 35,000
(C) 40,000
(D) 50,000
(E) 100,000

27. Which of the following is equivalent to $x^2 < x$?

(A) $0 < x < 1$
(B) $-1 < x < 1$
(C) $x < 0$
(D) $x < 1$
(E) $x > 1$



28. In the figure above, if $\angle CAB$ is a right angle, then $x =$

(A) 38
(B) 40
(C) 42
(D) 45
(E) 48

29. Of the positive integers that are multiples of 30 and are less than or equal to 360, what fraction are multiples of 12?

(A) $\frac{1}{6}$
(B) $\frac{1}{5}$
(C) $\frac{1}{3}$
(D) $\frac{2}{5}$
(E) $\frac{1}{2}$

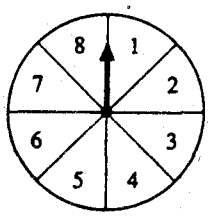
30. If x is an integer and $x^2 < 37$, what is the greatest possible value of x minus the least possible value of x?

(A) 5
(B) 6
(C) 10
(D) 12
(E) 36

T 19 s 5

A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

Column A	Column B



The circular board is divided into 8 sectors of equal area.

1. The number of the sector on which the pointer comes to rest after rotating 480° clockwise from the position shown — 6

The average (arithmetic mean) of x, $2x$, and 15 is 12.

2. x — 8

$$\frac{2t}{5} = 5$$

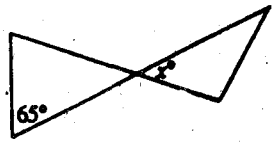
3. t^2 — 144

$$\begin{array}{r} 153.2 \\ -\ yx.y \\ \hline 63.4 \end{array}$$

In the correctly performed subtraction shown above, x and y represent digits between 0 and 9, inclusive.

4. $x + y$ — 17

Column A	Column B



5. x — 50

$x > 0$

6. $(x - 4)(x + 5)$ — $x^2 - 20$

---

n is a positive integer.

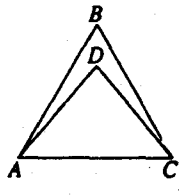
7. $(-1)^n + (-1)^{n+1}$ — 0

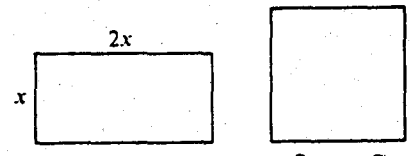
$0 < x < y$

8. $4y$

GO ON TO THE NEXT PAGE.

A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

Column A	Column B
A contractor can purchase paint at \$19.50 per gallon or at the bulk rate of 20 gallons for \$335.00.	
9. The amount saved per gallon by purchasing 20 gallons of the paint at the bulk rate rather than by the gallon	\$2.75
Circle F has circumference 4.	
10. The radius of F	1
 $\triangle ABC$ is equilateral.	
11. The measure of $\angle ADC$	60°
$xy = 2$, $x > 0$, $y > 0$	
12. $x + y$	5

Column A	Column B
 Rectangle R	Square S
The perimeters of R and S are equal.	
13. The area of R	The area of S
$\frac{r}{s} = -1$	
14. $\frac{r+s}{r}$	rs
The average (arithmetic mean) of a set of n test scores is 80. The average (arithmetic mean) of these n scores together with a score of 85 is 81.	
15. n	5

GO ON TO THE NEXT PAGE.

Directions: Each of the Questions 16-30 has five answer choices. For each of these questions, select the best of the answer choices given.

16. Nine pieces of paper numbered consecutively from 1 to 9 are put into a hat. If one piece of paper is drawn at random from the hat, what is the probability that it will have an even number?

(A) $\frac{1}{9}$

(B) $\frac{2}{9}$

(C) $\frac{4}{9}$

(D) $\frac{1}{2}$

(E) $\frac{5}{9}$

17. If $6x - 4 = 5x + 3$, then $x =$

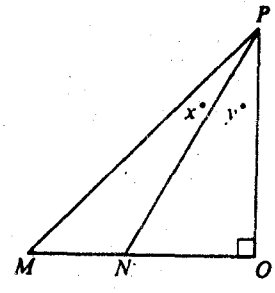
(A) -7
(B) -1
(C) 1
(D) 7
(E) 12

18. If p is a positive integer, which of the following could be a prime number?

(A) $8p$
(B) $8p + 1$
(C) $8p + 2$
(D) $8p + 4$
(E) $8p + 6$

19. A school district has 1,989 computers, which is approximately one computer for every 68.6 students. Of the following, which is the closest approximation, in thousands, of the number of students in the school district?

(A) 30
(B) 120
(C) 140
(D) 160
(E) 200



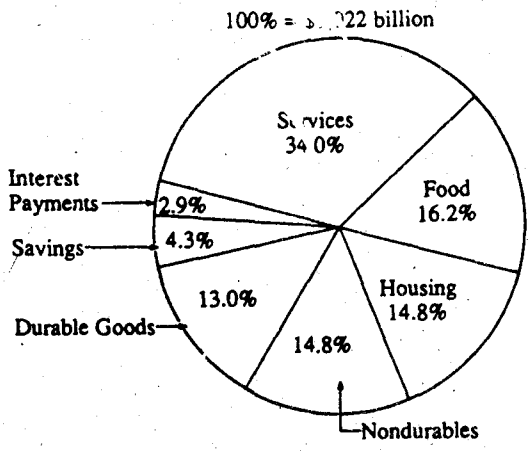
20. In the figure above, if $MO = OP$, then $y =$

(A) $45 - x$
(B) $90 - x$
(C) x
(D) $45 + x$
(E) $60 + x$

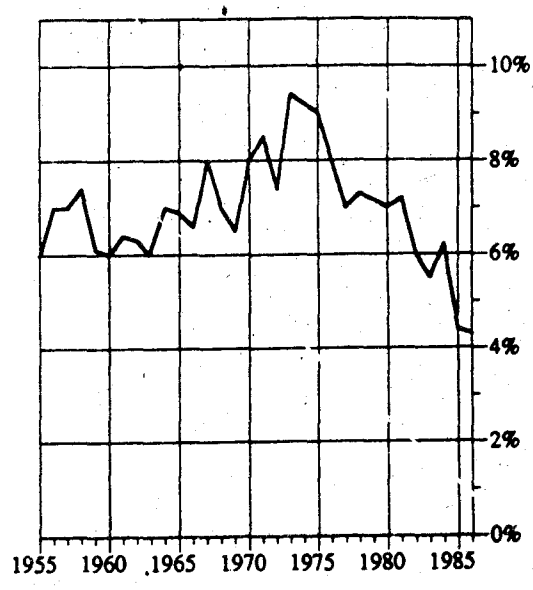
GO ON TO THE NEXT PAGE.

Questions 21-25 are based on the following graphs for Country X.

EXPENDITURE OF DISPOSABLE PERSONAL INCOME: 1986



SAVINGS AS A PERCENT OF DISPOSABLE PERSONAL INCOME: 1955-1986



Note: Graphs drawn to scale.

GO ON TO THE NEXT PAGE

21. In 1986 approximately how many billion dollars were spent on durable goods?

(A) 91
(B) 393
(C) 453
(D) 504
(E) 1,007

22. In 1986 housing and nondurables together accounted for approximately what fraction of disposable personal income?

(A) $\frac{1}{8}$
(B) $\frac{3}{20}$
(C) $\frac{1}{6}$
(D) $\frac{1}{4}$
(E) $\frac{3}{10}$

23. Savings as a percent of disposable personal income was approximately how many times as great in 1975 as in 1955?

(A) 0.6
(B) 0.8
(C) 1.3
(D) 1.5
(E) 1.7

24. If the gross national product in 1986 was $1,215 billion more than disposable personal income, then savings that year were approximately what percent of the gross national product?

(A) 1.5%
(B) 2%
(C) 2.5%
(D) 3%
(E) 6%

25. Which of the following statements can be inferred from the graphs?

I. In 1986 more than $1,000 billion of disposable personal income was spent for services.
II. From 1955 to 1986, inclusive, savings as a percent of disposable personal income was never greater than 8.5 percent.
III. The total dollar amount of savings was greater in 1975 than in 1980.

(A) I only
(B) II only
(C) III only
(D) I and III only
(E) I, II, and III

GO ON TO THE NEXT PAGE.

26. The sum of 2 numbers, x and y, equals twice their product. If $x = 3$, what is the value of y?

(A) $\frac{1}{8}$

(B) $\frac{3}{5}$

(C) $\frac{3}{2}$

(D) $\frac{5}{3}$

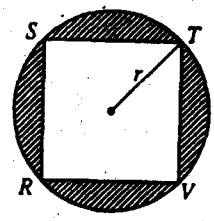
(E) $\frac{7}{3}$

27. Among all isosceles triangles RST having the measure of angle S equal to 40°, what is the largest possible measure for angle R?

(A) 40°
(B) 70°
(C) 90°
(D) 100°
(E) It cannot be determined from the information given.

28. S is the sum of three consecutive integers, the greatest of which is x. In terms of S, which of the following is the sum of three consecutive integers, the least of which is x?

(A) $S - 6$
(B) $S - 3$
(C) $S + 3$
(D) $S + 6$
(E) $2S$



29. In the figure above, $RSTV$ is a square inscribed in a circle with radius r. In terms of r, what is the total area of the shaded regions?

(A) $r^2(\pi - 2)$
(B) $2r(2 - \pi)$
(C) $\pi(r^2 - 2)$
(D) $\pi r^2 - 8r$
(E) $\pi r^2 - 4r$

30. An emergency vehicle travels 10 miles at a speed of 50 miles per hour. How fast must the vehicle travel on the return trip if the round-trip travel time is to be 20 minutes?

(A) 55 mph
(B) 60 mph
(C) 65 mph
(D) 70 mph
(E) 75 mph

FOR GENERAL TEST 19 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY					
Section 1			Section 4		
Number	Answer	P+	Number	Answer	P+
1	D	91	1	B	90
2	D	93	2	A	93
3	C	93	3	B	93
4	A	78	4	B	86
5	A	73	5	C	60
6	D	57	6	E	72
7	B	44	7	D	61
8	D	87	8	E	95
9	C	70	9	C	75
10	E	55	10	A	82
11	C	55	11	A	45
12	B	43	12	A	61
13	A	47	13	D	51
14	E	38	14	D	51
15	E	34	15	A	38
16	D	39	16	C	26
17	D	65	17	C	75
18	C	87	18	B	85
19	B	79	19	E	38
20	A	54	20	B	42
21	A	64	21	C	76
22	C	36	22	D	60
23	B	85	23	D	53
24	A	42	24	B	70
25	E	26	25	C	73
26	E	24	26	A	29
27	E	23	27	B	28
28	C	93	28	E	92
29	B	86	29	C	80
30	C	66	30	D	65
31	B	55	31	A	54
32	D	49	32	E	46
33	E	55	33	E	44
34	E	51	34	B	54
35	B	44	35	D	36
36	C	44	36	A	37
37	E	23	37	E	28
38	A	21	38	D	15

QUANTITATIVE ABILITY					
Section 2			Section 5		
Number	Answer	P+	Number	Answer	P+
1	A	86	1	B	80
2	C	72	2	B	76
3	B	74	3	A	75
4	A	71	4	C	75
5	A	66	5	D	73
6	A	65	6	A	67
7	B	48	7	C	61
8	D	63	8	D	59
9	D	74	9	C	49
10	C	56	10	B	51
11	D	45	11	A	48
12	B	40	12	D	34
13	D	29	13	B	42
14	B	50	14	A	47
15	C	27	15	B	38
16	C	92	16	C	87
17	B	83	17	D	89
18	A	77	18	B	79
19	E	61	19	C	68
20	D	61	20	A	73
21	D	86	21	B	87
22	B	72	22	E	71
23	B	66	23	D	85
24	D	42	24	D	36
25	A	36	25	A	36
26	D	55	26	B	63
27	A	42	27	D	29
28	C	55	28	D	28
29	E	39	29	A	31
30	D	30	30	E	25

ANALYTICAL ABILITY					
Section 3			Section 7		
Number	Answer	P+	Number	Answer	P+
1	A	75	1	C	79
2	D	77	2	B	57
3	C	68	3	C	63
4	D	51	4	E	33
5	D	35	5	A	47
6	D	53	6	E	39
7	A	72	7	D	89
8	B	88	8	B	85
9	C	44	9	A	81
10	E	54	10	D	51
11	C	85	11	A	70
12	A	85	12	C	61
13	E	75	13	D	48
14	A	80	14	B	35
15	A	28	15	E	29
16	B	78	16	B	31
17	C	58	17	B	81
18	E	54	18	C	64
19	A	49	19	C	60
20	C	44	20	B	62
21	E	29	21	D	70
22	A	18	22	B	46
23	B	67	23	E	63
24	A	48	24	C	78
25	E	24	25	D	75

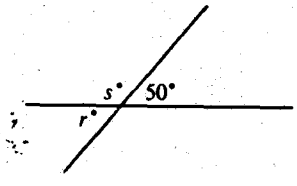
*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.

T 20 S2

A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

	Column A	Column B
	m is equal to 8 or -2.	
1.	$(m-3)^2$	25

	Column A	Column B
	x and y are each greater than 1.	
2.	$2xy$	$(2x)(2y)$



3.	$3r$	s
4.	$(-2)^8$	$-(2^8)$

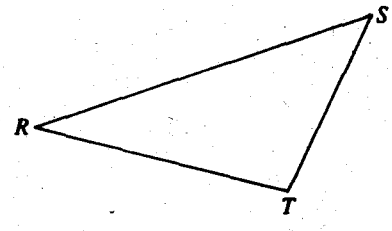
A decrease in the number of sales personnel in Company K to 85 percent of the original sales force resulted in a decrease of 500 in the number of monthly sales.

5.	The percent decrease in the number of Company K's monthly sales	The percent decrease in the number of Company K's sales personnel

	Column A	Column B
6.	$1-\frac{1}{7}$	$1-\frac{1}{8}$

Jim is 3 years older than Jonathon.
Myra is 5 years older than Melissa.
Jonathon is 2 years older than Melissa.

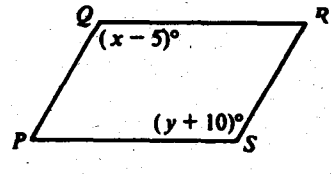
7.	Jim's age	Myra's age



8.	$ST + TR$	RS

$750 < n < 1{,}500$

9.	$1{,}500 - n$	$n - 750$



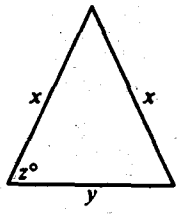
$PQRS$ is a parallelogram.

10.	x	y

GO ON TO THE NEXT PAGE.

A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

	Column A	Column B
	$\frac{x + 2y + z}{2} = y$	
11.	x	$-z$



$x > y$

12.	z	60
13.	$(x + 3)(x + 3)$	$x^2 + 9$

	Column A	Column B
		
	Three tennis balls of identical size are stacked one on top of the other so that they fit exactly inside a closed right cylindrical can, as shown.	
14.	The height of the stack of 3 balls	The circumference of one of the balls

t is an integer.

15.	$\frac{1}{1 + 2^t}$	$\frac{1}{1 + 3^t}$

GO ON TO THE NEXT PAGE.

Directions: Each of the Questions 16-30 has five answer choices. For each of these questions, select the best of the answer choices given.

16. If $\frac{1}{6}n = \frac{1}{5}$, then $n =$

(A) $\frac{1}{30}$

(B) $\frac{5}{6}$

(C) $\frac{6}{5}$

(D) 6

(E) 30

17. If membership in the Elks Club increases from 120 to 150, what is the percent increase?

(A) 15%
(B) 25%
(C) 30%
(D) 40%
(E) 80%

18. The value of $\left(1 - \frac{5}{7}\right)\left(1 + \frac{3}{4}\right)$ is

(A) $\frac{1}{28}$

(B) $\frac{3}{14}$

(C) $\frac{9}{28}$

(D) $\frac{13}{28}$

(E) $\frac{1}{2}$

19. If the circumference of a circle is less than 10π, which of the following could be the area of the circle?

(A) 20π
(B) 25π
(C) 36π
(D) 81π
(E) 100π

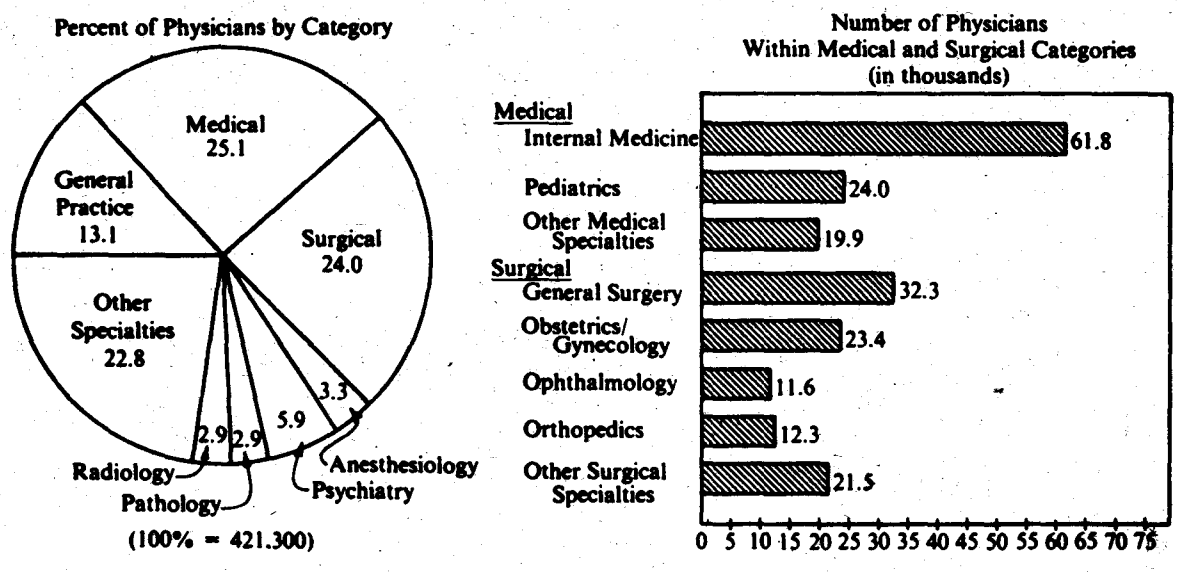
20. If a, b, and c are consecutive positive integers and $a < b < c$, which of the following must be an odd integer?

(A) abc
(B) $a + b + c$
(C) $a + bc$
(D) $a(b + c)$
(E) $(a + b)(b + c)$

GO ON TO THE NEXT PAGE.

Questions 21-25 refer to the following graphs.

PHYSICIANS CLASSIFIED BY CATEGORY IN 1977



21. Approximately what was the ratio of physicians in the surgical category to physicians in pathology?

(A) 10 to 1
(B) 8 to 1
(C) 7 to 1
(D) 5 to 6
(E) 4 to 5

22. Approximately how many more physicians were in psychiatry than in radiology?

(A) 3,000
(B) 6,300
(C) 12,600
(D) 24,800
(E) 37,000

23. Approximately how many of the physicians in the medical category were not in pediatrics?

(A) 61,800
(B) 76,000
(C) 81,700
(D) 92,600
(E) 101,100

24. If there was a total of 334,000 physicians in 1970, what was the approximate percent increase in the number of physicians from 1970 to 1977?

(A) 10%
(B) 12%
(C) 16%
(D) 20%
(E) 26%

25. In 1977, if twice as many anesthesiologists as orthopedists were sued for malpractice and 10 percent of the orthopedists were sued, approximately what percent of the anesthesiologists were sued?

(A) 5%
(B) 9%
(C) 18%
(D) 22%
(E) 25%

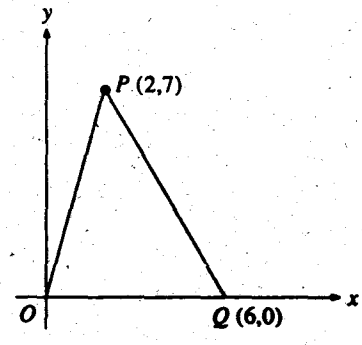
GO ON TO THE NEXT PAGE.

26. If x can have only the values -3, 0, and 2, and y can have only the values -4, 2, and 3, what is the greatest possible value for $2x + y^2$?

(A) 13
(B) 15
(C) 16
(D) 20
(E) 22

27. If B is the midpoint of line segment AD and C is the midpoint of line segment BD, what is the value of $\frac{AB}{AC}$?

(A) $\frac{3}{4}$
(B) $\frac{2}{3}$
(C) $\frac{1}{2}$
(D) $\frac{1}{3}$
(E) $\frac{1}{4}$



28. The area of $\triangle OPQ$ in the figure above is

(A) 6
(B) 12
(C) 14
(D) 21
(E) 42

29. What is the greatest positive integer n such that 2^n is a factor of 12^{10}?

(A) 10
(B) 12
(C) 16
(D) 20
(E) 60

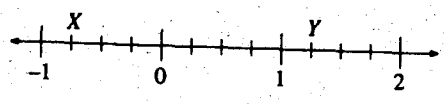
30. For each of n people, Margie bought a hamburger and a soda at a restaurant. For each of n people, Paul bought 3 hamburgers and a soda at the same restaurant. If Margie spent a total of \$5.40 and Paul spent a total of \$12.60, how much did Paul spend just for hamburgers? (Assume that all hamburgers cost the same and all sodas cost the same.)

(A) \$10.80
(B) \$9.60
(C) \$7.20
(D) \$3.60
(E) \$2.40

T 20 S4

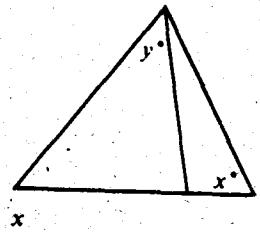
A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

	Column A	Column B
1.	$\frac{4}{5} + \frac{2}{11}$	1
2.	$(1.9)^3$	$(1.999)^2$



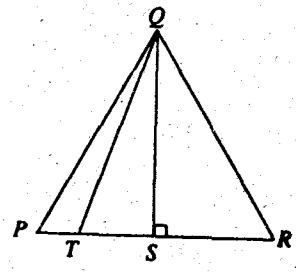
The numbers that correspond to points X and Y on the number line are $-\frac{3}{4}$ and $\frac{5}{4}$, respectively.

3.	The number that corresponds to the point halfway between X and Y	$\frac{1}{3}$



4.	x	y
5.	$7\frac{1}{5}$	7.02

	Column A	Column B
6.	$\frac{y}{2}$	$\frac{x+y}{2}$



S is the midpoint of segment PR.

7.	The length of segment QT	The length of segment QR

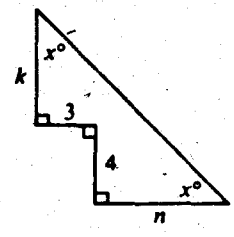
A merchant made a profit of \$2.75 on the sale price of a sweater that cost the merchant \$12.25.

8.	The profit expressed as a percent of the cost to the merchant	The profit expressed as a percent of the sale price

GO ON TO THE NEXT PAGE.

A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

	Column A	Column B



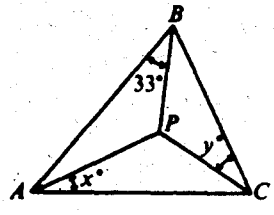
9.	k	n

A student has test scores of 85, x, and y, respectively, and an average (arithmetic mean) score of 95 on the three tests.

10.	The average (arithmetic mean) of x and y	100

$$y^2 + 4y - 12 = 0$$

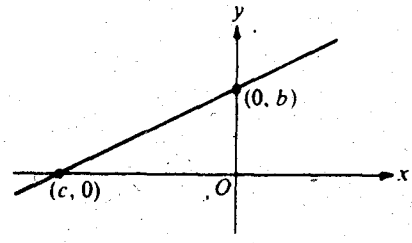
11.	y^2	30



Segments PA, PB, and PC are the angle bisectors of $\triangle ABC$.

12.	$x + y$	57

	Column A	Column B

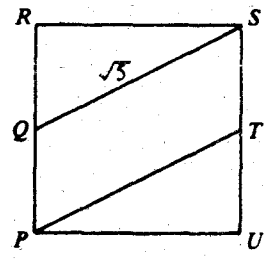


The line $y = ax + b$ is graphed on the rectangular coordinate axes.

13.	a	$\frac{b}{-c}$

For all numbers n, $n^* = 32 - n$.

14.	$(n^*)^*$	n



Q and T are the midpoints of opposite sides of square $PRSU$.

15.	The area of region $PQST$	$\frac{3}{2}$

GO ON TO THE NEXT PAGE

Directions: Each of the Questions 16-30 has five answer choices. For each of these questions, select the best of the answer choices given.

16. If a certain company purchased its computer terminals for a total of $540,400 and each of the terminals was purchased for $350, how many terminals did the company purchase?

(A) 1,624
(B) 1,544
(C) 1,434
(D) 1,384
(E) 1,264

17. $\dfrac{\frac{2}{3} \times 9 \times \frac{2}{5} \times 15}{\frac{1}{3} \times 18 \times \frac{1}{5} \times 30} =$

(A) 2

(B) 1

(C) $\frac{1}{2}$

(D) $\frac{1}{3}$

(E) $\frac{1}{4}$

18. If $2x = -10$, then $4x^2 - 6x - 5 =$

(A) 65
(B) 75
(C) 125
(D) 130
(E) 135

19. If $3 < x < 8$ and $5 < y < 11$, which of the following represents all the possible values of xy?

(A) $3 < xy < 11$
(B) $8 < xy < 19$
(C) $15 < xy < 88$
(D) $24 < xy < 55$
(E) $33 < xy < 40$

20. Chris gave Jane x cards. He gave Betty one card more than he gave Jane and he gave Paul two cards fewer than he gave Betty. In terms of x, how many cards did Chris give Betty, Jane, and Paul altogether?

(A) $3x + 1$

(B) $3x$

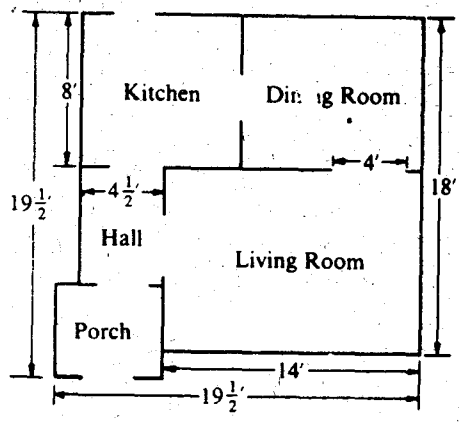
(C) $3x - 1$

(D) $x - 1$

(E) $\frac{x}{3}$

GO ON TO THE NEXT PAGE.

Questions 21-25 refer to the following floor plan.



Front

Note: Figure drawn to scale.

The figure above shows the plan for the ground floor of a house. The thickness of the walls should be ignored in answering the questions. The dimensions are in feet, and each region is rectangular.

21. What is the area, in square feet, of the living room?

(A) 161
(B) 140
(C) 133
(D) 126
(E) 115

22. If the ceilings and walls of the living room, dining room, kitchen, and hall are to be painted, how many square feet must be painted?

(A) $231\frac{1}{4}$
(B) 324
(C) 333
(D) $380\frac{1}{4}$
(E) It cannot be determined from the information given.

23. If the hall is $6\frac{1}{2}$ feet long, what is the perimeter, in feet, of the porch area?

(A) 18
(B) 19
(C) 20
(D) 21
(E) 22

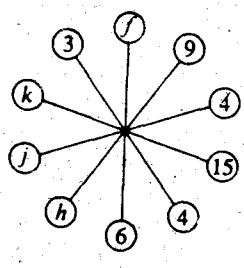
24. How many more feet does the porch extend in front of the house than it does beyond the side of the house?

(A) $\frac{1}{2}$
(B) 1
(C) $1\frac{1}{2}$
(D) 2
(E) It cannot be determined from the information given.

25. If the kitchen is square, what is the ratio of the area of the kitchen to the area of the dining room?

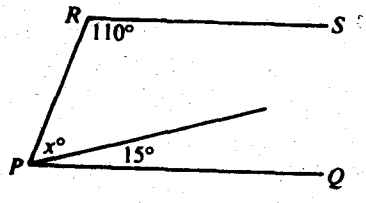
(A) $\frac{16}{37}$
(B) $\frac{3}{7}$
(C) $\frac{4}{7}$
(D) $\frac{8}{11}$
(E) $\frac{16}{21}$

GO ON TO THE NEXT PAGE.



26. In the figure above, the product of any two numbers in adjacent circles is equal to the product of the two numbers that are opposite those circles. For example, $3 \cdot f = 4 \cdot 6$. What is the value of j?

(A) 3
(B) 4
(C) 6
(D) 12
(E) 20



27. In the figure above, if $PQ \parallel RS$, then $x =$

(A) 95
(B) 85
(C) 75
(D) 65
(E) 55

28. If $x \neq 0$, then $\frac{x+7}{7x} - \frac{1}{x} =$

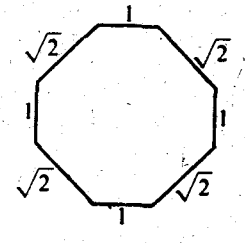
(A) $\frac{x+6}{6x}$

(B) $\frac{x+6}{7x}$

(C) $\frac{-6x+7}{7x}$

(D) $\frac{1}{7}$

(E) $-\frac{1}{7}$

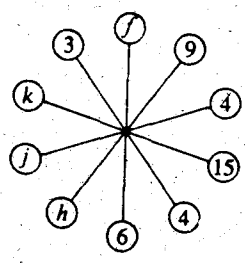


29. The figure above shows the lengths of the sides of an equiangular polygon. What is the area of the polygon?

(A) 7
(B) 8
(C) 9
(D) $14\sqrt{2}$
(E) It cannot be determined from the information given.

30. A certain recipe makes enough batter for exactly 8 circular pancakes that are each 10 inches in diameter. How many circular pancakes, each 5 inches in diameter and of the same thickness as the 10-inch pancakes, should the recipe make?

(A) 4
(B) 16
(C) 24
(D) 32
(E) 40



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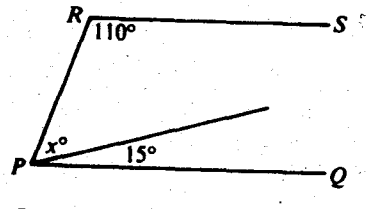
(A) 3
(B) 4
(C) 6
(D) 12
(E) 20



27. In the figure above, if $PQ \parallel RS$, then $x =$

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(B) 85
(C) 75
(D) 65
(E) 55

28. If $x \neq 0$, then $\frac{x+7}{7x} - \frac{1}{x} =$

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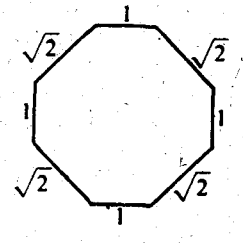
(B) $\frac{x+6}{7x}$

(C) $\frac{-6x+7}{7x}$

(D) $\frac{1}{7}$

(E) $-\frac{1}{7}$



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(A) 7
(B) 8
(C) 9
(D) $14\sqrt{2}$
(E) It cannot be determined from the information given.

30. A certain recipe makes enough batter for exactly 8 circular pancakes that are each 10 inches in diameter. How many circular pancakes, each 5 inches in diameter and of the same thickness as the 10-inch pancakes, should the recipe make?

(A) 4
(B) 16
(C) 24
(D) 32
(E) 40

FOR GENERAL TEST 20 ONLY

Answer Key and Percentages* of Examinees Answering Each Question Correctly

VERBAL ABILITY

Section 3			Section 6		
Number	Answer	P+	Number	Answer	P+
1	B	89	1	C	85
2	B	88	2	A	84
3	D	51	3	B	80
4	A	48	4	D	59
5	C	49	5	D	55
6	E	44	6	E	48
7	D	30	7	E	34
8	C	76	8	A	92
9	D	83	9	C	86
10	B	77	10	D	77
11	E	67	11	B	58
12	E	61	12	B	57
13	D	54	13	C	43
14	C	34	14	E	35
15	C	35	15	C	33
16	A	14	16	A	33
17	B	86	17	D	63
18	B	74	18	C	70
19	A	79	19	E	90
20	D	54	20	B	48
21	A	81	21	D	59
22	B	26	22	E	64
23	E	52	23	A	30
24	C	42	24	A	38
25	D	76	25	E	26
26	A	50	26	C	63
27	B	44	27	D	44
28	E	92	28	B	86
29	A	90	29	A	91
30	A	86	30	B	75
31	D	83	31	A	85
32	C	75	32	C	74
33	A	43	33	A	42
34	C	39	34	D	45
35	B	34	35	A	38
36	E	29	36	B	30
37	E	26	37	D	25
38	D	7	38	D	20

QUANTITATIVE ABILITY

Section 2			Section 4		
Number	Answer	P+	Number	Answer	P+
1	C	87	1	B	85
2	B	85	2	A	86
3	A	87	3	B	81
4	A	88	4	D	74
5	D	77	5	A	83
6	B	74	6	D	78
7	C	70	7	B	76
8	A	61	8	A	61
9	D	57	9	B	50
10	A	56	10	C	61
11	C	40	11	D	41
12	A	43	12	C	35
13	D	31	13	C	32
14	B	45	14	C	23
15	D	29	15	A	47
16	C	81	16	B	83
17	B	69	17	B	77
18	E	79	18	C	74
19	A	53	19	C	65
20	E	42	20	B	68
21	B	84	21	B	79
22	C	66	22	E	76
23	C	69	23	D	56
24	E	47	24	A	51
25	C	36	25	E	37
26	D	65	26	A	49
27	B	64	27	E	51
28	D	65	28	D	56
29	D	25	29	A	29
30	A	30	30	D	25

ANALYTICAL ABILITY

Section 1			Section 5		
Number	Answer	P+	Number	Answer	P+
1	A	81	1	B	79
2	D	62	2	B	77
3	C	53	3	D	75
4	B	94	4	D	59
5	D	82	5	B	66
6	E	63	6	C	79
7	D	80	7	A	89
8	E	40	8	D	77
9	D	74	9	C	62
10	E	57	10	A	43
11	D	40	11	A	70
12	A	69	12	E	44
13	A	54	13	A	70
14	C	29	14	C	71
15	A	56	15	E	55
16	E	16	16	D	57
17	B	48	17	D	36
18	C	35	18	E	36
19	E	43	19	C	58
20	C	44	20	B	65
21	C	48	21	D	27
22	C	36	22	A	24
23	D	48	23	C	42
24	B	53	24	D	48
25	A	28	25	D	51

*Estimated P+ for the group of examinees who took the GRE General Test in a recent three-year period.